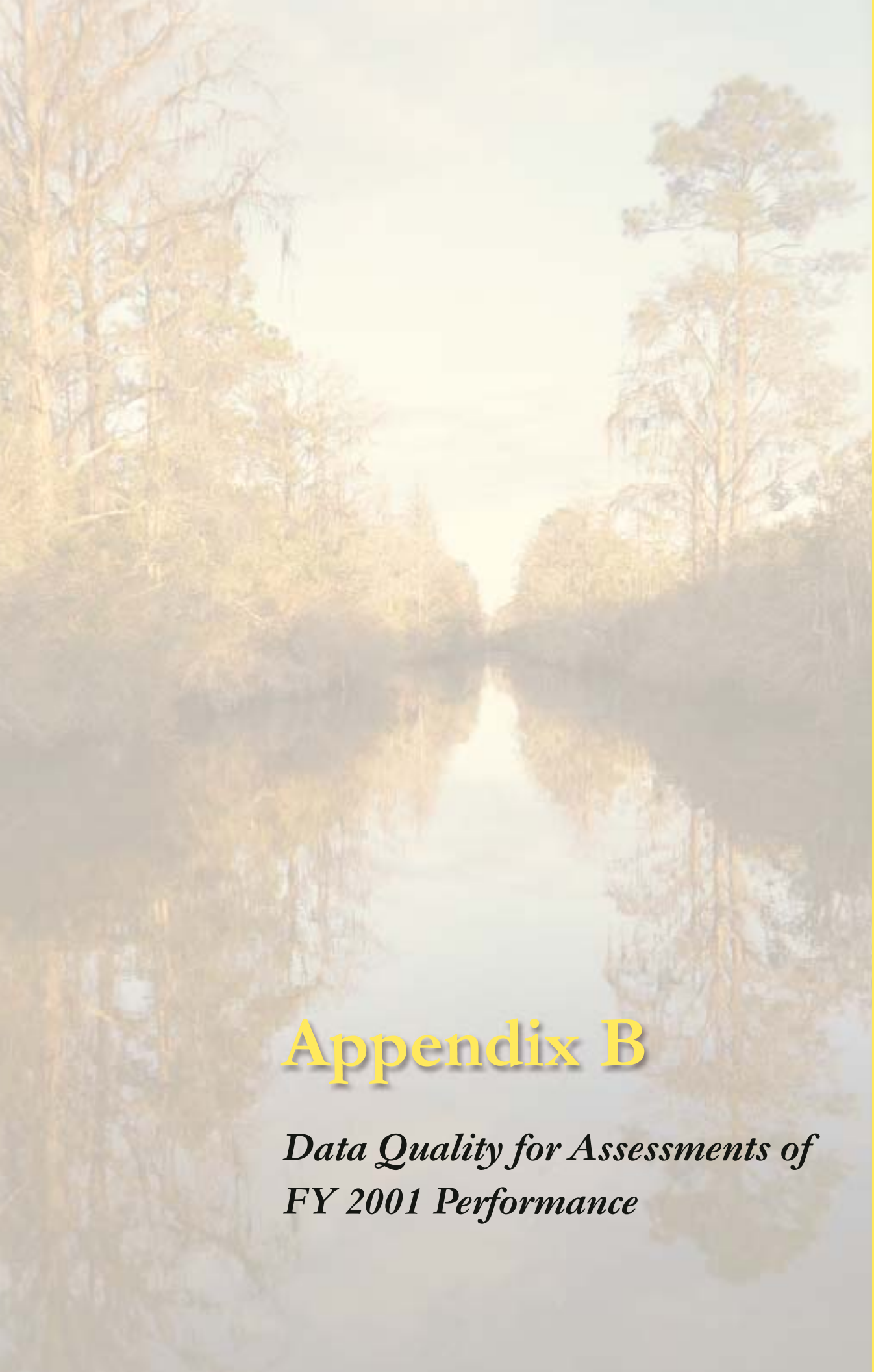

Appendix B

Data Quality for Assessments of FY 2001 Performance

APPENDIX B:
DATA QUALITY FOR ASSESSMENTS OF FY 2001 PERFORMANCE

Goal 1 - Clean Air

Appendix B describes the quality of the data used to measure EPA's performance. For each of the 10 EPA Strategic Goals, this appendix describes (1) the performance measures (PMs), (2) the database(s) supporting the PMs, (3) the source of the database(s), (4) the quality of the data, (5) planned improvements to the data or database(s), and (6) any material inadequacies.

PERFORMANCE MEASURES: (Refer to Performance Data Chart pages II-7, II-8, II-9)

- Total number of people who live in areas designated to attainment of the clean air standard for ozone. (APG 1)
- Areas designated to attainment for the ozone, PM-10, CO, SO_2, NO_2, and Pb standards. (APG 1, 2, & 5)
- Additional people living in newly designated areas with demonstrated attainment of the ozone, PM, CO, SO_2, NO_2, and Pb standards. (APG 1, 2, & 5)
- Total number of people who live in areas designated in attainment with clean air standards for PM, CO, SO_2, NO_2, and Pb. (APG 2 & 5)
- Total number of people living in areas with demonstrated attainment of the NO_2 standard. (APG 5)
- CO reduced from Mobile Sources. (APG 5)

[Note: PM = particulate matter, PM-10 = particulate matter 10 micrometers or less in diameter, CO = carbon monoxide, SO_2 = sulfur dioxide, NO_2 = nitrogen dioxide, Pb = lead.]

Performance Database: Aerometric Information Retrieval System (AIRS). AIRS comprises two major subsystems: (1) the Air Quality Subsystem (AQS) stores ambient air quality data (used to determine whether nonattainment areas have the 3 years of clean air data needed for redesignation), and (2) the AIRS Facility Subsystem (AFS) stores emissions and compliance/enforcement information for facilities. AIRS is accessible at the web site http://www.epa.gov/ttn/airs/.

Findings and Required Elements Data System (FREDS). FREDS is used to track the progress of states and regions in reviewing and approving the required data elements of the State Implementation Plans (SIPs). SIPs define what actions a state will take to improve the air quality in areas that do not meet National Ambient Air Quality Standards. FREDS is an internal database.

Data from AIRS and FREDS are both complete and final for FY 2001.

Data Source: AIRS - State and local agency data from State and Local Air Monitoring Stations (SLAMS).

FREDS - Data are provided by EPA's regional offices.

Data Quality: AIRS - The quality assurance and quality control (QA/QC) of the national air monitoring program have several major components: the Data Quality Objective (DQO) process, reference and equivalent methods program, EPA's National Performance Audit Program (NPAP), system audits, and network reviews. To ensure quality data, the SLAMS are required to meet the following: (1) each site must meet network design and siting criteria; (2) each site must provide adequate quality assurance assessment, control, and corrective action functions according to minimum program requirements; (3) all sampling methods and equipment must meet EPA reference or equivalent requirements; (4) acceptable data validation and record-keeping procedures must be followed; and (5) data from SLAMS must be summarized and reported annually to EPA. Finally, there are system audits that regularly review the overall air quality data collection activity for any needed changes or corrections.

FREDS - There are no formal quality assurance and control procedures.

There are no specific AIRS data limitations. Potential data issues could include: (1) incomplete or missing data (e.g., some values might be absent because of incomplete reporting, and some values subsequently might be changed because of quality assurance activities); (2) inaccuracies due to imprecise measurement and recording (e.g., monitors are faulty, air pollution levels measured in the vicinity of a particular monitoring site might not be representative of the prevailing air quality of a county or urban area); and (3) inconsistent or nonstandard methods of data collection and processing (e.g., noncalibrated and nonoperational monitors). However, all data issues are subject to the QA/QC procedures listed above and therefore are resolved or accounted for depending on how the data will be used.

There are no specific FREDS data limitations. A potential data issue could include incomplete or missing data from regions. However, all data are reviewed for completeness.

Improvements: AIRS - EPA is nearing completion of the reengineering of the AQS to make it a more user-friendly, Windows-based system. As a result, the ambient air quality data stored in AQS will be more easily accessible through the Internet. AFS, a mainframe system that the Office of Air Quality Planning and Standards (OAQPS) used for many years for managing its national emission database, has been replaced by the National Emissions Trends (NET) database. NET is an ORACLE database accessible through the Internet. Both systems will be enhanced to include the data standards (e.g., latitude/longitude, chemical nomenclature) developed under the Agency's Reinventing Environmental Information (REI) Initiative. Facility identification standards will be included so that air emission data in the NET database can be linked with environmental data in other Agency databases for the same facility.

Material Inadequacy: There are no material inadequacies for any of these performance measures.

PERFORMANCE MEASURES: (Refer to Performance Data Chart pages II-7, II-8)

- Reduction in mobile source PM 10. (APG 2)
- Reduction in mobile source PM 2.5. (APG 2)
- Reduction in mobile source volatile organic compound (VOC) emissions. (APG 1)
- Reduction in mobile source NO_x emissions. (APG 1)

Performance Database: Aerometric Information Retrieval System (AIRS). AIRS comprises two major subsystems: (1) the Air Quality Subsystem (AQS) stores ambient air quality data (used to determine whether nonattainment areas have the 3 years of clean air data needed for redesignation), and (2) the AIRS Facility Subsystem (AFS) stores emissions and compliance/enforcement information for facilities. AIRS is accessible at the web site http://www.epa.gov/ttn/airs/. Data from AIRS are complete and final for FY 2001.

Data Source: AIRS - State and local agency data from SLAMS.

Data Quality: AIRS - The quality assurance and quality control of the national air monitoring program have several major components: the DQO process, reference and equivalent methods program, EPA's NPAP, system audits, and network reviews. To ensure quality data, the SLAMS are required to meet the following: (1) each site must meet network design and siting criteria; (2) each site must provide adequate quality assurance assessment, control, and corrective action functions according to minimum program requirements; (3) all sampling methods and equipment must meet EPA reference or equivalent requirements; (4) acceptable data validation and record-keeping procedures must be followed; and (5) data from SLAMS must be summarized and reported annually to EPA. Finally, system audits regularly review the overall air quality data collection activity for any needed changes or corrections.

There are no specific AIRS data limitations. Potential data issues could include (1) incomplete or missing data (e.g., some values might be absent because of incomplete reporting, and some values subsequently might be changed because of quality assurance activities); (2) inaccuracies due to imprecise measurement and recording (e.g., monitors are faulty; air pollution levels measured in the vicinity of a particular monitoring site might not be representative of

the prevailing air quality of a county or urban area); and (3) inconsistent or nonstandard methods of data collection and processing (e.g., noncalibrated and nonoperational monitors). However, all data issues are subject to the QA/QC procedures listed above and therefore are resolved or accounted for depending on how the data will be used.

EPA does make estimates of mobile source emissions for both past and future years. The most complete and systematic process for making and recording such estimates is the "Trends" inventory process executed each year within EPA by OAQPS's Emissions, Monitoring, and Analysis Division (EMD). The Assessment and Modeling Division is the coordinator within the Office of Transportation and Air Quality for providing EMD information and methods for making the mobile source estimates. In addition, EMD's contractors obtain some necessary information directly from other sources; for example, weather data and the Federal Highway Administration's (FHWA) Vehicle Miles Traveled (VMT) estimates by state. EMD always creates and publishes the emission inventory estimate for the most recent historical year, detailed down to the county level and with 31 line items representing mobile sources. Usually, EMD also creates estimates of emissions for future years. When the method for estimating emissions changes significantly, EMD usually revises its older estimates of emissions in years prior to the most recent year to avoid a sudden discontinuity in the apparent emissions trend. EMD publishes the national emission estimates in hard copy; county-level estimates are available electronically.

It is useful to understand just what mobile source information is updated in Trends each year. An input is updated annually only if there is a convenient source of annual data for the input. Generally, VMT, the mix of VMT by type of vehicles (FHWA types, not EPA types), temperatures, gasoline properties, and the designs of inspection/maintenance (I/M) programs are updated each year. The age mix of highway vehicles is updated, using state registration data; this captures the effect of fleet turnover, assuming emission factors for older and newer vehicles are correct. Emission factors for all mobile sources and activity estimates for non-road sources are changed only when the Office of Transportation and Air Quality requests that this be done and is able to provide the new information in a timely manner.

The limitations of the inventory estimates for mobile sources come from limitations in the modeled emission factors in grams per mile and also the estimated vehicle miles traveled for each vehicle class. For non-road emissions, the estimates come from a model using equipment populations, emission factors per hour or unit of work, and an estimate of usage. These input data are frequently revised with newer data. Any limitations in the input data, such as emission factors (based on emission factor testing and models predicting overall fleet emission factors, such as in grams per mile), vehicle miles traveled (which are derived from Department of Transportation data), and other factors, will carry over into limitations in the emission inventory estimates.

Improvements: AIRS - EPA is nearing completion of the reengineering of the AQS to make it a more user-friendly, Windows-based system. As a result, the ambient air quality data stored in AQS will be more easily accessible through the Internet. AFS, a mainframe system that the OAQPS used for many years for managing its national emission database, has been replaced by the NET database. NET is an ORACLE database accessible through the Internet. Both systems will be enhanced to include the data standards (e.g., latitude/longitude, chemical nomenclature) developed under the Agency's REI Initiative. Facility identification standards will be included so that air emission data in the NET database can be linked with environmental data in other Agency databases for the same facility.

Material Inadequacy: There are no material inadequacies for any of these performance measures.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-9)

Combined stationary and mobile source reduction in air toxics emissions. (APG 4)

Performance Database: National Toxic Inventory (NTI). Information about the NTI and the National-Scale Air Toxics Assessment (NATA) is located at the web site http://www.epa.gov/ttn/atw/nata. There are performance

data lags for this performance measure because EPA relies on updates to the NTI, which are realistically feasible only every 3 years. In addition, typically data are not available until about 2 years after the inventory date. In other words, EPA reports data for this performance measure as follows:

NTI Year	1999	2002	2002	2002	2005
Performance Target Year	1999	2000	2001	2002	2003
Data Available	2002	2004	2004	2004	2007

Data Source: The NTI includes emissions from large industrial or point sources, smaller stationary area sources, and mobile sources. The baseline NTI (for base years 1990–1993) includes emissions information for 188 hazardous air pollutants from more than 900 stationary sources. It is based on data collected during the development of Maximum Achievable Control Technology (MACT) standards, state and local data, Toxics Release Inventory (TRI) data, and emissions estimates using accepted emission inventory methodologies. The 1996 and the 1999 NTI contain facility-specific, nonpoint source, and mobile source estimates and are used as input to National Air Toxics Assessment (NATA) modeling. (A dispersion model, Assessment System for Pollution Exposure Nationwide [ASPEN] contributes to NATA modeling.) The primary source of data in the 1996 NTI is state and local data. The 1996 and 1999 state and local facility data are supplemented with data collected during the development of the MACT standards and TRI data.

Data Quality: Because the NTI is primarily a database designed to house information from other primary sources, most of the quality assurance and control efforts have been to identify duplicate data from the different data sources and to supplement missing data. When a discrepancy between data sources is found, EPA tries to determine the best primary source data. Mobile source data are validated by using speciated test data from the mobile source emission factor program, along with peer-reviewed models that estimate national tons for the relevant year.

Each base year EPA staff, state and local agencies, and industry have reviewed NTI. To assist in the review of the 1999 NTI, EPA provided a comparison of data from the three sources (MACT, TRI, and state and local inventories) for each facility.

The NTI contains data from other primary references. Because of the different data sources, not all information in the NTI has been compiled using identical methods. Also, for the same reason, there are likely some geographic areas with more detail and accuracy than others. Because of the lesser level of detail in the 1993 NTI, it is not suitable for input to dispersion models.

Improvements: The 1996 and 1999 NTI are a significant improvement over the baseline NTI because of the added facility-level detail (e.g., stack heights, latitude/longitude locations), making it useful for dispersion model input. Future inventories (2002, etc.) are expected to improve significantly because of increased interest in the NTI by regulatory agencies, environmental interests, and industry, and the greater potential for modeling and trend analysis.

Material Inadequacy: There is no material inadequacy for this performance measure.

PERFORMANCE MEASURES: (Refer to Performance Data Chart page II-10)

- SO_2 emissions. (APG 6)
- No_x reduction. (APG 7)

Performance Database: The following are the databases used to support the performance measures in the Acid Rain Program: Emissions Tracking System (ETS), SO_2 and NO_X emissions collected by Continuous Emission Monitoring Systems (CEMS), CASTNet for dry deposition, and National Atmospheric Deposition Program

(NADP) for wet deposition. Data are collected on a calendar year basis. Results for FY 2001 will be available approximately 6 months into 2002.

Data Source: On a quarterly basis ETS receives hourly measurements of SO_2, NO_x, volumetric flow, CO_2, and other emission-related parameters from more than 2,000 units affected by Title IV.

CASTNet measures particle and gas acidic deposition chemistry. Specifically, CASTNet measures sulfate and nitrate dry deposition and meteorological information at approximately 70 active monitoring sites. CASTNet is primarily an eastern, long-term dry deposition network funded, operated, and maintained by EPA's Office of Air and Radiation (OAR).

NADP is a national long-term wet deposition network that measures precipitation chemistry and provides long-term geographic and temporal trends in concentration and deposition of major cations and anions. Specifically NADP provides measurements of sulfate and nitrate wet deposition at approximately 200 active monitoring sites. EPA, along with several other federal agencies, states, and other private organizations, provides funding and support for NADP. The Illinois State Water Survey, University of Illinois maintains the NADP database.

Data Quality: Quality assurance and control requirements dictate performing a series of quality assurance tests of CEMS' performance. For these tests, emissions data are collected under highly structured, carefully designed testing conditions, which involve either high-quality standard reference materials or multiple instruments performing simultaneous emission measurements. The resulting data are screened and analyzed using a battery of statistical procedures, including one that tests for systematic bias. If CEMS fails the bias test, indicating a potential for systematic underestimation of emissions, either the problem must be identified and corrected or the data are adjusted to minimize the bias.

CASTNet has established data quality objectives and quality control procedures for accuracy and precision. CASTNet recently underwent formal Agency peer review by an external panel.

NADP has established data quality objectives and quality control procedures for accuracy, precision, and representativeness. The intended use of these data is to establish spatial and temporal trends in wet deposition and precipitation chemistry. The NADP methods of determining wet deposition values have undergone extensive peer review, handled entirely by the NADP housed at the Illinois State Water Survey, University of Illinois. Assessments of changes in NADP methods are developed primarily through the academic community and reviewed through the technical literature process.

The ETS provides instant feedback to the data sources (e.g., the electrical utilities) to identify any data reporting problems. EPA staff then conduct data quality review on each quarterly ETS file. In addition, states or EPA staff conduct random audits on selected sources' data submission.

There are no known data limitations with any of these data sources.

Improvements: To improve the spatial resolution of the Network (CASTNet), additional monitoring sites are needed. However, at this time EPA has no plans to add sites.

Material Inadequacy: There is no material inadequacy for this performance measure.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-8)

Complete PM longitudinal panel study data collection and report exposure data. (APG 3)

Performance Database: Program output; no internal tracking system.

Data Source, Data Quality, Improvements, Material Inadequacy: Not applicable.

Goal 1 - Clean Air (continued)

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-8)

Final PM Air Quality Criteria Document complete. (APG 3)

Performance Database: Program output; no internal tracking system.

Data Source, Data Quality, Improvements, Material Inadequacy: Not applicable.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-8)

Report on health effects of concentrated ambient PM in healthy animals and humans, in asthmatic and elderly humans, and in animal models of asthma and respiratory infections. (APG 3)

Performance Database: Program output; no internal tracking system.

Data Source, Data Quality, Improvements, Material Inadequacy: Not applicable.

Goal 2 - Clean and Safe Water

Appendix B describes the quality of the data used to measure EPA's performance. For each of the 10 EPA Strategic Goals, this appendix describes (1) the performance measures (PMs), (2) the database(s) supporting the PMs, (3) the source of the database(s), (4) the quality of the data, (5) planned improvements to the data or database(s), and (6) any material inadequacies.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-17)

Population served by community water systems with no violations during the year of any federally enforceable health-based standards that were in place by 1994. (APG 8)

Performance Database: Safe Drinking Water Information System (SDWIS or SDWIS-FED). FY 2001 annual performance data are not yet available. Using third-quarter SDWIS data, EPA is projected to meet the FY 2001 target. http://www.epa.gov/safewater/databases.html#fed

Data Source: States, regions for Direct Implementation (DI) states.

Data Quality: SDWIS has numerous edit checks built into the software to reject erroneous data. There are quality assurance manuals for states and regions to follow to ensure data quality. EPA offers training to states on data entry and data retrieval, and it also provides a troubleshooter's guide and an error code database for states to use when they have questions on how to enter or correct data.

Quality assurance (QA) audits of the Office of Ground Water and Drinking Water's quality assurance/quality control (QA/QC) processes, including those for SDWIS, are carried out every 3 years. The QA Division coordinates this effort. EPA last completed a quality assurance audit in July 1999 and will complete a QA audit for 1999–2001 data in FY 2002. SDWIS was identified as an Agency weakness in the FY 1999 and FY 2000 Federal Managers' Financial Integrity Act Reports. The Data Reliability Action Plan (DRAP), described below, developed and implemented to address corrective actions for SDWIS identified in 1999, was completed by the end of FY 2001. However, EPA, states, and stakeholders have expanded on this plan by developing an Information Strategy. This strategy, which could be considered Phase II of the Data Reliability Action Plan, sets the direction for a comprehensive modernization of SDWIS over the next 3 to 5 years.

Currently SDWIS is an "exceptions" database that focuses exclusively on public water systems' noncompliance with drinking water regulations (health-based and program). States implement drinking water regulations with the support of the Public Water System Supervision (PWSS) grant program. States with primacy determine whether public water

systems have violated maximum contaminant levels (MCL), treatment technique requirements, consumer notification requirements, or monitoring and reporting requirements, and they report those violations through SDWIS.

Recent state data verification and other QA analyses indicate that the most significant data quality problem is under reporting to EPA of both monitoring and reporting violations and incomplete inventory characteristics. Monitoring and reporting violations are not included in the health-based violation category; however, failures to monitor could mask treatment technique and MCL violations. The incomplete inventory data limit EPA's ability to: (1) accurately quantify the number of sources and treatments applied, (2) undertake geospatial analysis, and (3) integrate and share data with other data systems.

Improvements: Using a newly developed information strategy developed by EPA in partnership with the states and major stakeholders, several improvements to SDWIS are under way.

First, EPA will continue to work with states to implement the DRAP, a multistep approach to improve the quality and reliability of data in SDWIS. The DRAP already has improved the completeness, accuracy, and timeliness of the data in SDWIS through: (1) training courses for SDWIS data entry, error correction, and regulation-specific compliance determination and reporting requirements; (2) specific DRAP analyses, follow-up activities, and state-specific technical assistance; and (3) web-enabling SDWIS-STATE for easier data entry by the states.

Second, more states will use SDWIS-STATE, a software information system jointly designed by states and EPA, for support as they implement the drinking water program. SDWIS-STATE is the counterpart to EPA's federal drinking water information system, SDWIS-FED, and employs the same edit criteria and enforces the same mandatory data elements. If the SDWIS-STATE system is fully used by a state, the information it holds meets EPA's minimum data requirements and can easily be reported to EPA, thereby eliminating data conversion errors and improving data quality and accuracy. In addition, a web-enabled version of SDWIS-STATE and a data migration application that all states can use to process data for upload to SDWIS-FED are being developed. EPA estimates that by the end of 2003, 40 states will be using SDWIS-STATE for data collection.

Third, EPA is modifying SDWIS-FED to: (1) streamline its table structure, which simplifies updates and retrievals; (2) minimize data entry options that result in complex software and prevent meaningful edit criteria; and (3) enforce compliance with permitted values and Agency data standards through software edits, all of which will improve the accuracy of the data.

Finally, EPA, in partnership with the states, is developing information modules on other drinking water programs, such as source water protection, underground injection control, and the Drinking Water State Revolving Fund. These modules will be integrated with SDWIS to provide a more comprehensive data set with which to characterize the quality of the Nation's drinking water supplies.

Material Inadequacy: There is no material inadequacy for this performance measure.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-17)

Cumulative number of beaches for which monitoring and closure data is available at http://www.epa.gov/OST/beaches/. (APG 9)

Performance Database: National Health Protection Survey of Beaches Information Management System. FY 2001 annual performance data are complete. http://www.epa.gov/OST/beaches/.

Data Source: State and local governments voluntarily provide the information. The database includes fields identifying the beaches for which monitoring and notification information is available. The database also identifies those states that have received a Beaches Environmental Assessment and Coastal Health (BEACH) Act grant. This information is updated annually.

Data Quality: A standard survey form, approved by the Office of Management and Budget (OMB), is distributed by mail in hard copy and is available on the Internet for electronic submission. Where data are entered over the Internet, a password is issued to ensure the appropriate party is completing the survey. States receiving a BEACH Act grant are subject to the Agency's grant regulations at 40 CFR 31.45, which require states and tribes to develop and implement QA practices for the collection of environmental information; these procedures will help ensure data quality. EPA reviews the survey responses to ensure the information is complete and then follows up with the state or local government to obtain additional information where needed. However, the Agency cannot verify the accuracy of the voluntary information state and local governments provide.

Participation in this survey and collection of data is voluntary. Although the voluntary response rate has been high, the survey has not captured the complete universe of beaches. Participation in the survey will become a mandatory condition of grants awarded under the BEACH Act Program (described below); however, state and local governments are not required to apply for a grant. Currently the Agency has data standards, but procedures, methods, indicators, and thresholds can vary between jurisdictions because to date this has been a voluntary program. The Agency expects the limitations to diminish as more states apply for BEACH Act grants.

Improvements: With the passage of the BEACH Act of 2000, the Agency became authorized to award grants to states to develop and implement monitoring and notification programs consistent with federal requirements. As the Agency awards these grants, it will require standard program procedures, sampling and assessment methods, and data elements for reporting. To the extent that state governments apply for and receive these grants, the amount, quality, and consistency of available data will improve. In addition, the BEACH Act requires the Agency to maintain a database of national coastal recreation water pollution occurrences. The Agency will fulfill this requirement by revising the current database to include this new information. In revising the database, the Agency will investigate modes for electronic exchange of information and ways to reduce the number of reporting requirements.

Material Inadequacy: There is no material inadequacy for this performance measure.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-18)

States submissions of new or revised water quality standards that EPA has reviewed and approved or disapproved, and promulgated Federal replacement standards. (APG 11)

Performance Database: No formal database exists to track EPA approval/disapproval actions on new and revised state water quality standards. FY 2001 annual performance data are complete.

Data Source: Regional reporting.

Data Quality: Headquarters compiles the data and queries the regions as needed. Regions collect data from their client states and report to headquarters once yearly. EPA headquarters and regions annually review the water quality standards (WQS) data submitted by states.

Improvements: None.

Material Inadequacy: There is no material inadequacy for this performance measure.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-18)

Cumulative number of tribes with water quality standards adopted and approved. (APG 11)

Performance Database: No formal database exists. FY 2001 annual performance data are complete.

Data Source: Regional reporting.

Data Quality: Headquarters compiles the data and queries the regions as needed. Regions collect data from their client tribes and report to headquarters once yearly. EPA headquarters and regions annually review the data submitted by tribes.

Improvements: None.

Material Inadequacy: There is no material inadequacy for this performance measure.

PERFORMANCE MEASURES: (Refer to Performance Data Chart page II-19)

- Major point sources are covered by current permits. (APG 14)
- Minor point sources are covered by current permits. (APG 14)

Performance Database: Permit Compliance System (PCS). FY 2001 annual performance data are complete.

Data Source: Regions and states enter data into PCS.

Data Quality: The Office of Water (OW) uses data in PCS to determine which permits have not exceeded their expiration dates. As part of the QA/QC process to improve data quality in PCS, OW generated state-by-state reports listing what appears in PCS for key data fields for facilities and discharge pipes (name, address, Standard Industrial Classification [SIC] code, latitude/longitude, Hydrologic Unit Code [HUC], reach, flow, issuance date, expiration date, application received date, effective date, etc.). EPA distributed these reports in January 2001 to state and regional PCS, National Pollutant Discharge Elimination System (NPDES), and geographic information system (GIS) coordinators to allow states to "see what EPA sees" when it views PCS data. Where discrepancies exist between state and PCS data, OW is identifying such discrepancies and making corrections in PCS, where necessary. Additionally, many states have been collecting and verifying NPDES data on their own but maintain these data in separate state-level systems (electronic and hard copy). EPA plans to populate fields in PCS that are currently blank with existing state-level data provided by states.

Office of the Inspector General (OIG) audits 8100076 (March 13, 1998) and 8100089 (March 31, 1998) discussed the need for current data in PCS. OW is categorizing the form in which the data exist at the state level (e.g., currently in PCS, currently in a separate state system and/or currently in hard copy only). As EPA creates a picture of national PCS data availability, staff are working with individual states and regions to tailor approaches to getting key data into PCS. OW is offering data upload, data entry, and, if necessary, data compilation support to states and anticipates completion of the project by the end of FY 2002.

There are significant data gaps for minor facilities and discrepancies between state databases and PCS.

Improvements: EPA headquarters is providing contractor assistance to improve the data quality of PCS. By 2003, PCS is scheduled to be modernized to make it easier to use and to ensure that it includes all needed data to manage NPDES programs.

Material Inadequacy: There are no material inadequacies for any of these performance measures.

PERFORMANCE MEASURES: (Refer to Performance Data Chart page II-19)

- Loading reductions of toxics by facilities subject to effluent guidelines promulgated between 1992 and 1999, as predicted by model projection. (APG 13)
- Loading reductions of conventional pollutants by facilities subject to effluent guidelines promulgated between 1992 and 1999, as predicted by model projection. (APG 13)
- Loading reductions of non-conventional pollutants by facilities subject to effluent guidelines promulgated between 1992 and 1999, as predicted by model projection. (APG 13)

Performance Database: No one database provides this information. PCS is used for available information on permitted facilities, including SIC codes, flow, and location data. Other databases that may be used include the Clean Water Needs Survey for treatment-level information, the storm water Notice of Intent (NOI) database to determine facilities covered under storm water general permits, the National Oceanic and Atmospheric Administration (NOAA) Rainfall Database for precipitation information, and STORET for water quality information. The data in these databases will be used to model loadings from NPDES permitted facilities. However, data are not available for all categories of dischargers or for all dischargers in each category. Data are particularly lacking for storm water dischargers.

Data Sources: Regions and states enter data into PCS, the Needs Survey, and STORET. NOI data are provided by applicants for coverage under general permits (both storm water and non-storm water permits), and limited data elements are entered into PCS by some states. Where EPA is the permitting authority, EPA contractors enter storm water NOI data into a separate database. EPA has collected effluent guidelines development data for various industrial categories. NOAA enters data into the Rainfall Database. EPA is collecting best management practices effectiveness data from various studies. EPA is collecting combined sewer overflow (CSO) data from states for required reports to Congress; these data should ultimately reside in PCS.

Data Quality: EPA reviews critical data submitted by states. Some databases, such as STORET, require documentation of the quality of the data along with the data entry. With respect to PCS, EPA has a project under way to work with states to improve the data in PCS. (See "Improvement" section for previous performance measures "Major/Minor Point Sources Covered by Current Permits). Load reductions are to be estimated by modeling the various categories of sources. Actual data will be used to calibrate and verify the models used. Data quality review procedures are listed under the narrative for the previous performance measures "Major/Minor Point Sources Covered by Current Permits."

There are significant data gaps in PCS, including reliability issues, for minor facilities, general permits, and specific categories of discharges, such as CAFOs. Additionally, neither monitoring nor flow data are required for certain categories of general permits. The Agency, therefore, is not able to provide sufficient information to measure loadings reductions for all of the approximately 550,000 facilities that fall under the NPDES Program.

Improvements: EPA headquarters is providing contractor assistance to improve the data quality of PCS. By 2003 PCS is scheduled to be modernized to make it easier to use. As the modernized system is being developed, additional efforts are under way to bolster comprehensive data collection to ensure that the modernized system includes data needed to manage NPDES programs. In FY 2002 the Office of Wastewater Management (OWM) plans to develop a comprehensive Action Plan for modeling point source loadings from a variety of sources. OWM will develop loadings reduction targets for each of the identified sources. In general the methodology might have to be different for each source, based on what data are available, the difficulty in modeling in the absence of existing data, and the difficulty in regularly updating the methodology as more data become available. The strategy is to move progressively from the lowest measurement level (programmatic actions) toward the highest level (direct environmental measurements) over time. Levels include the following: I. Program Implementation, such as number of permits issued; II. Controls Implementation, such as number of best management practices in place; III. Estimated Load Reductions Through Modeling; IV. Measure Actual Load Reductions, such as sampling plant influent and, effluent; and V. Monitor Water Quality Improvement by in-stream measurement. However, sufficient real-time data might never exist to pursue national use of Level IV and V data.

Material Inadequacy: There are no material inadequacies for any of these performance measures.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-20)

Clean Water State Revolving Fund (CWSRF) projects that have initiated operations. (APG 15)

Performance Database: CWSRF National Information Management System. FY 2001 annual performance data are complete. http://www.epa.gov/r5water/cwsrf/

Data Source: Reporting by municipal and other facility operators. Entry by state regulatory agency personnel and EPA regional staff. Collection and reporting once yearly.

Data Quality: EPA headquarters is responsible for compiling the data and querying regions as needed. Regions are responsible for collecting the data from their client states and reporting the data to headquarters once yearly. EPA headquarters and regions annually review the data submitted by states.

Improvements: This system has been in effect since 1996. It is updated on an annual basis, and database fields are changed or added as needed.

Material Inadequacy: There is no material inadequacy for this performance measure.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-19)

Acres of habitat restored and protected nationwide since 1987 as part of the National Estuary Program (NEP). (APG 12)

Performance Database: A simple database/tracking system is being developed to document the number of acres of habitat restored and protected. Key fields will include the type of action (e.g., protection or restoration) and habitat type (e.g. estuarine, riparian). FY 2001 annual performance data are complete.

Data Source: NEP documents, such as annual work plans (which contain achievements made in the previous year) and annual progress reports, are used along with other implementation tracking materials to document the number of acres of habitat restored and protected. EPA then aggregates the data provided by each NEP to arrive at a national total for the entire program.

Data Quality: The staff of the NEP prepare primary data based on their own reports and on data supplied by other partnering agencies/organizations (that are responsible for implementing the action resulting in habitat protection and restoration). Aggregate data are compiled through a contractor review of the NEP documentation. The NEP staff are requested to follow guidance provided by EPA to prepare their reports, and to verify the numbers they provide. EPA and a contractor then confirm that the national total accurately reflects the information submitted by each program. Because this is a new annual performance measure that is still being refined, audits or quality reviews have not yet been conducted.

It is still too early to determine the full extent of data limitations. Current data limitations include information that might be reported inconsistently (based on different interpretations of the protection and restoration definitions), acreage that might be miscalculated or misreported, and acreage that might be double-counted (same parcel might also be counted by a partnering/implementing agency or a parcel might need to be replanted multiple years). In addition, measuring the number of acres of habitat might not directly correlate to improvements in the health of the habitat reported but is rather a measure of on-the-ground progress made by the NEPs.

Improvements: The Office of Wetlands, Oceans and Watersheds developed a standardized format for data reporting and compilation. In addition to providing the reporting matrix, habitat protection and restoration activities were defined and habitat categories specified to assist in providing consistency of reporting. The office has also designed a web page that highlights habitat loss/alteration in an educational fashion with graphics and images that reflect specific NEP reports (but does not illustrate aggregate data at the national level). This web page will enable EPA to provide a visual means of communicating NEP performance and habitat protection and restoration progress to a wide range of stakeholders and decision-makers. In the future EPA will examine the possibility of georeferencing the data in a GIS.

Material Inadequacy: There is no material inadequacy for this performance measure.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-18)

Watersheds that have greater than 80 percent of assessed waters meeting all water quality standards. (APG 10)

Performance Database: Watershed Assessment Tracking Environmental Results (WATERS). WATERS is used to summarize water quality information at the watershed level. For purposes of this national summary, "watersheds" are equivalent to 8-digit hydrologic unit codes (HUCs), of which there are 2,262 nationwide. State Clean Water Act section (CWA) 305(b) data are submitted every 2 years, and many states provide annual updates. Data to be used for the FY 2001 Annual Report include state submissions from spring 2000. FY 2001 annual performance data are complete. http://www.epa.gov/305b/

Data Source: State CWA section 305(b) reporting. The data used by a state to assess water quality and prepare its 305(b) report include ambient monitoring results from multiple sources (state, U.S. Geological Survey, volunteer, academic), as well as predictive tools like water quality models. Because states compile diverse data to support water quality assessments, EPA uses these data to present a snapshot of water quality as reported by the states but does not use the data to report trends in water quality. EPA's OW and Office of Research and Development have established a monitoring and design team that is working with states on a 3- to 5-year project to recommend a design for a national probability-based monitoring network that could be used to provide both status and trends in water quality at the state and national levels.

Data Quality: QA/QC of data provided by states pursuant to individual state assessments (under state CWA section 305(b)) is dependent on individual state procedures. Numerous system-level checks are built into WATERS based on the business rules associated with assessment information. States are then given the opportunity to review the information in WATERS to ensure it accurately reflects the data they submitted. Detailed data exchange guidance and training are also provided to the states. The sufficiency threshold for inclusion in this measure requires that 20 percent of stream miles in an 8-digit HUC be assessed.

Data are not representative of comprehensive national assessments because states do not yet employ a monitoring design that characterizes all waters in each reporting cycle. States do not use a consistent suite of water quality indicators to assess attainment with water quality standards. For example, indicators of aquatic life use support range from biological community assessments to levels of dissolved oxygen to concentrations of toxic pollutants. State assessments of water quality may include uncertainties associated with derived or modeled data. Differences in monitoring designs among and within states prevent the Agency from aggregating water quality assessments at the national level with known statistical confidence.

Improvements: Numerous independent reports have cited that weaknesses in monitoring programs and the reporting of monitoring data undermine EPA's ability to depict the condition of the Nation's waters and to support scientifically sound water program decisions. The most recent reports include the 1998 *Report of the Federal Advisory Committee on the Total Maximum Daily Load (TMDL) Program*; the March 15, 2000, General Accounting Office report *Water Quality: Key Decisions Limited by Inconsistent and Incomplete Data*; and the 2001 National Academy of Sciences report *Assessing the TMDL Approach to Water Quality Management*.

In response to these evaluations, EPA has been working with states and other stakeholders to improve: (1) data coverage so that state reports reflect the condition of all waters of the state, (2) data consistency to facilitate comparison and aggregation of state data to the national level, and (3) documentation so that data limitations and discrepancies are fully understood by data users. First, EPA enhanced two existing data management tools (STORET and the Assessment Database) that include documentation of data quality information. Second, EPA has developed a GIS tool called WATERS that integrates many databases, including STORET, the Assessment Database, and a new water quality standards database. These integrated databases facilitate comparison and understanding of differences

among state standards, monitoring activities, and assessment results. Third, EPA and states have developed the guidance document *Consolidated Assessment and Listing Methodology—A Compendium of Best Practices*, intended to facilitate increased consistency in monitoring program design and the data and decision criteria used to support water quality assessments.

OW is working with federal agencies, states, and tribes to improve the database that supports this management measure by addressing the underlying methods of monitoring water quality and assessing the data. OW also is working with partners to enhance monitoring networks to achieve comprehensive coverage of all waters, use a consistent suite of core water quality indicators (supplemented with additional indicators for specific water quality questions), and document key data elements and decision criteria through electronic data systems and assessment methodologies. OW is using a variety of mechanisms to implement these improvements, including data management systems, guidance, stakeholder meetings, training and technical assistance, program reviews, and negotiations.

Material Inadequacy: There is no material inadequacy for this performance measure.

Goal 3 - Safe Food

Appendix B describes the quality of the data used to measure EPA's performance. For each of the 10 EPA Strategic Goals, this appendix describes (1) the performance measures (PMs), (2) the database(s) supporting the PMs, (3) the source of the database(s), (4) the quality of the data, (5) planned improvements to the data or database(s), and (6) any material inadequacies.

PERFORMANCE MEASURES: (Refer to Performance Data Chart page II-26)

- New chemicals. (APG 17)
- New uses. (APG 17)

Performance Database: Pesticide Regulatory Action Tracking System (PRATS). The Office of Pesticide Programs (OPP) maintains PRATS. The system is designed to track regulatory data and studies submitted by the registrant (pesticide manufacturer/producer) in support of a pesticide's registration application. OPP staff update the data regularly. Output counts are available in October of the next fiscal year.

Data Source: OPP staff update the status of the submissions and studies as they are received and as work is completed by the reviewers. The status indicates whether the application is ready for review, the application is in the process of review, or the review has been completed.

Data Quality: These are program outputs. OPP staff and management review the program outputs in accordance with established policies in place for the registration program.

Improvements: The Office of Pesticide Programs Information Network (OPPIN), which is still under development, will consolidate various OPP program databases. New uses and new chemicals are a surrogate for pesticide risk. EPA is working internally, as well as with stakeholders from environmental organizations and industry, to develop outcome data and measures that more accurately depict risk from pesticides. Quantitatively assessing human risks from pesticide exposure is challenging in part because pesticides are pervasive in the environment and there are many routes of exposure.

Material Inadequacy: There are no material inadequacies for these performance measures.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-26)

Register safer chemicals and biopesticides. (APG 16)

Performance Database: PRATS. OPP maintains PRATS, which is designed to track regulatory data and studies submitted by the registrant (pesticide manufacturer/producer) in support of a pesticide's registration application. OPP staff update the data regularly. Output counts are available in October of the next fiscal year.

Data Source: OPP staff update the status of the submissions and studies as they are received and as work is completed by the reviewers. The status indicates whether the application is ready for review, the application is in the process of review, or the review has been completed.

Data Quality: These are programs outputs. OPP staff and management review the program outputs in accordance with established policy for the registration of reduced risk pesticides as set forth in Pesticide Regulation Notice 97-3, September 4, 1997.

Improvements: OPPIN, which is still under development, will consolidate various OPP program databases. The registration of safer pesticides is a surrogate for measuring pesticide risk. EPA is working internally, as well as with stakeholders from environmental organizations and industry, to develop outcome data and measures that more accurately depict risk from pesticides. Quantitatively assessing human health risks from pesticide exposure is challenging in part because pesticides are pervasive in the environment and there are many routes of exposure.

Material Inadequacy: There is no material inadequacy for this performance measure.

PERFORMANCE MEASURES: (Refer to Performance Data Chart page II-27)

- Product reregistration. (APG 18)
- Reregistration Eligibility Decisions (REDs). (APG 18)

Performance Database: PRATS. OPP maintains PRATS, which tracks information submitted by industry in support of a pesticide's registration application. OPP staff update the data regularly. Output counts are available in October of the next fiscal year.

Data Source: OPP staff update the status of each action as it is completed by the reviewer.

Data Quality: These are program outputs. OPP staff and management review the program outputs in accordance with established policies in place for the reregistration program.

Improvements: OPPIN is still under development and will consolidate various OPP program databases. EPA is working internally, as well as with stakeholders from environmental organizations and industry, to develop outcome data and measures that more accurately depict risk from pesticides.

Material Inadequacy: There are no material inadequacies for any of these performance measures.

PERFORMANCE MEASURES: (Refer to Performance Data Chart page II-27)

- Tolerance reassessments for top 20 foods eaten by children. (APG 18)
- Tolerance reassessments. (APG 18)

Performance Database: Tolerance Reassessment Tracking System (TORTS). TORTS is an OPP in-house system that contains records on all 9,721 tolerances subject to reassessment. It includes the total number of tolerances reassessed by fiscal year, the outcomes of reassessments (number of tolerances raised, lowered, revoked, or unchanged), and the appropriate priority group for the tolerance. Additionally, it breaks out the tolerances for specific chemical groups such as organophosphates, carbamates, organochlorines, carcinogens, high-hazard inerts, children's foods, and minor uses. OPP staff update the data regularly. Output counts are available in October of the next fiscal year.

Data Source: OPP staff update the status of each action as it is completed by the reviewer.

Data Quality: These are program outputs. OPP staff and management review the program outputs in accordance with established policies in place for reregistration/tolerance reassessment activities.

Improvements: EPA is working internally, as well as with stakeholders from environmental organizations and industry, to develop outcome data and measures that more accurately depict risk from pesticides.

Material Inadequacy: There are no material inadequacies for any of these performance measures.

Goal 4 - Preventing Pollution and Reducing Risk in Communities, Homes, Workplaces, and Ecosystems

Appendix B describes the quality of the data used to measure EPA's performance. For each of the 10 EPA Strategic Goals, this appendix describes (1) the performance measures (PMs), (2) the database(s) supporting the PMs, (3) the source of the database(s), (4) the quality of the data, (5) planned improvements to the data or database(s), and (6) any material inadequacies.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-35)

- Notice of Commencements. (APG 19)
- Toxic Substance Control Act (TSCA) Premanufacture Notice Reviews. (APG 19)

Performance Database: Output measure; no internal tracking system.

Data Source, Data Quality, Improvements, Material Inadequacy: Not applicable.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-36)

Through chemical testing program, obtain test data for high production volume chemicals on master testing list (Chemical Right-to-Know Initiative). (APG 20)

Performance Database: Output measure; no internal tracking system.

Data Source, Data Quality, Improvements, Material Inadequacy: Not applicable.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-36)

Students/staff experiencing improved indoor air quality (IAQ) in schools. (APG 22)

Performance Database: Survey of representative sample of schools. There are more than 110,000 public and private schools in the United States. Using commercially available and government databases of the universe of schools, a random sample of schools will be mailed an OMB-approved questionnaire. Data are preliminary (because this a new survey); complete data will likely be available for the FY 2002 Annual Report. Because OMB approval expires after 3 years, the program will likely conduct one additional survey before 2005. No web link is available.

Data Source: EPA plans to use a contractor to contact a representative number of schools and mail the questionnaire. School personnel will fill out the questionnaire and send it back to the contractor. The contractor will collate the data and produce a report.

Data Quality: The survey will be designed, conducted, and analyzed in accordance with approved Agency procedures. The contractor and EPA will review the data for completeness and quality. Results of the survey are subject to the inherent limitations of self-reporting on the questionnaire.

Improvements: A survey was conducted in FY 2001 to determine implementation and adoption of good IAQ practices in school buildings, including use of EPA's "Indoor Air Quality Tools for Schools" kit. EPA expects results of the survey to be available by the end of FY 2002. This survey will provide the Agency with a solid estimate of the number of schools adopting and implementing good IAQ practices. Prior to this survey, EPA tracked the number of schools receiving the kit and estimated the population of the school to determine the number of students/staff experiencing improved IAQ without the qualitative information of actual adoption and implementation of good IAQ practices.

EPA is compiling a database to better track the number of schools that have received "Tools for Schools" kits and the number of schools that have implemented the tools. The database will be enhanced in FY 2002 to allow for accurate electronic reporting by EPA's regional offices.

Material Inadequacy: There is no material inadequacy for this performance measure.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-37)

Reduction of TRI non-recycled wastes. (APG 23)

Performance Database: Toxic Release Inventory System (TRIS). Performance data are not available currently; data will be available in spring 2003. http://www.epa.gov/tri/

Data Source: Data reported to EPA from facilities meeting criteria specified in section 313 of the Emergency Preparedness and Community Right-to-Know Act. Following thorough quality assurance review and data processing, data are made publicly available through an annual Public Data Release report and associated publicly accessible databases.

Data Quality: The quality of TRI data depends on the quality of the data submitted by the reporting facility. Although EPA has no direct control over the quality of the submitted data, the Agency does assist reporting facilities in improving their estimates. EPA also verifies that the facilities' information is correctly entered into the TRI database.

Improvements: EPA is developing regulations for improving reporting of source reduction activities by TRI releasers.

Material Inadequacy: There is no material inadequacy for this performance measure.

PERFORMANCE MEASURES: (Refer to Performance Data Chart page II-37)

- Millions of tons of municipal solid waste diverted. (APG 24)
- Daily per capita generation of municipal solid waste. (APG 24)

Performance Database: In the nonhazardous waste program, no national databases are in place or planned. Data are currently unavailable; they are expected September 30, 2003.

Data Source: The baseline numbers for municipal solid waste source reduction and recycling are developed using a materials flow methodology that employs data largely from the Department of Commerce. The methodology is provided in an EPA report titled *Characterization of Municipal Solid Waste in the United States*.

Data Quality: Quality assurance and quality control are provided by the Department of Commerce's internal procedures and systems. The report prepared by the Agency is then reviewed by a number of experts for accuracy and soundness. The report, including the baseline numbers and annual rates of recycling and per capita municipal

solid waste generation, is widely accepted among experts. Various assumptions are factored into the analysis to develop progress on each measure.

Improvements: Because these numbers are widely reported and accepted by experts, no new efforts to improve the data or the methodology have been identified or are necessary.

Material Inadequacy: There are no material inadequacies for any of these performance measures.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-38)

Number of environmental assessments for Tribes. (APG 25)

Performance Database: The American Indian Environmental Office is developing a new information system that will be used to access baseline environmental information. This information system will draw together environmental information on tribes from the existing EPA databases, such as those from the Office of Water and EPA regions, as well as databases from other federal agencies. All the data will be accessed on a per tribe basis so that environmental information can be queried by tribe, by state, by EPA region, or nationally. Information that is geo-referenced will be displayed graphically on an electronic map of tribal reservation boundaries. The information system also will have a narrative profile description of environmental information and management activities for each tribe. The structure of the system is complete and expected to be fully populated with profiles for all federally recognized tribes by FY 2005. Public access to information through the Internet cannot be provided until EPA completes consultation with the tribes but is expected in FY 2002.

Data Source: The data sources will be existing federal databases that are available nationally, from both EPA and other agencies, supplemented by electronic data sources collected from the EPA regions. These data sources will be identified and referenced in the system application.

Data Quality: The quality of the external databases will be described but not ranked. A Quality Management Plan is projected for development as Agency-wide guidance is developed. Each tribe will have the opportunity to review and comment on its Tribal Profile. Mechanisms for adjusting data will be supplied. The data limitations of the Tribal Profiles are subject to the underlying existing database systems referenced.

Improvements: Statistical analyses on a national level are planned using the baseline data collected and reported on a per tribe basis. EPA will be able to develop statistically valid reports on whether tribes are underserved (generally, they are) or overserved compared to the Nation as a whole in a number of areas, such as wastewater treatment, drinking water, and solid waste services.

Material Inadequacy: There is no material inadequacy for this performance measure.

Goal 5 - Better Waste Management, Restoration of Contaminated Waste Sites, and Emergency Response

Appendix B describes the quality of the data used to measure EPA's performance. For each of the 10 EPA Strategic Goals, this appendix describes (1) the performance measures (PMs), (2) the database(s) supporting the PMs, (3) the source of the database(s), (4) the quality of the data, (5) planned improvements to the data or database(s), and (6) any material inadequacies.

PERFORMANCE MEASURES: (Refer to Performance Data Chart pages II-47, II-48, II-50)

- Superfund construction completions. (APG 26)
- Potentially Responsible Parties (PRPs) conduct 70 percent of the work at new construction starts. (APG 27)

- Ensure fairness by making Orphan Share Offers at 100 percent of all eligible sites settlement negotiations for response work. (APG 27)
- Refer to the Department of Justice (DOJ), settle, or write off 100 percent of Statute of Limitations (SOLs) cases for Superfund sites with total unaddressed past costs equal to or greater than $200,000 and report value of costs recovered. (APG 28)
- Percent of Federal facilities for which final offers are made that meet Agency policy and guidance. (APG 32)
- Percent of Federal facilities with final offers made within 18 months. (APG 32)
- Evaluate liability concerns—100 percent of Prospective Purchaser Agreement requests addressed up to a maximum of 40 requests. (APG 34)

Performance Database: Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS). The Agency uses CERCLIS to track, store, and report Superfund site information. Data are complete for assessment of FY 2001 performance.

Data Source: Automated EPA system; headquarters and regional offices enter data into CERCLIS on a rolling basis.

Data Quality: To ensure data accuracy and control, the following administrative controls are in place: (1) *Superfund/ Oil Program Implementation Manual* (SPIM), the program management manual that details what data must be reported; (2) Report Specifications, which are published for each report detailing how reported data are calculated; (3) *Coding Guide*, which contains technical instructions to such data users as regional Information Management Coordinators (IMCs), program personnel, report owners, and data input personnel; (4) Quality Assurance (QA) Unit Testing, an extensive QA check against report specifications; (5) QA Third Party Testing, an extensive test made by an independent QA tester to ensure that the report produces data in conformance with the report specifications; (6) Regional CERCLIS Data Entry Internal Control Plan, which includes: (a) regional policies and procedures for entering data into CERCLIS, (b) a review process to ensure that all Superfund accomplishments are supported by source documentation, (c) delegation of authorities for approval of data input into CERCLIS, and (d) procedures to ensure that reported accomplishments meet accomplishment definitions; and (7) a historical lockout feature so that changes in past fiscal year data can be changed only by approved and designated personnel and are logged to a change log report.

The Office of the Inspector General (OIG) conducted an audit and the General Accounting Office (GAO) completed a review to assess the validity of the data in CERCLIS. The OIG audit report, *Superfund Construction Completion Reporting* (No. E1SGF7-05-0102-8100030), verified the accuracy of the information that the Agency was providing to Congress and the public. The OIG report concluded that the Agency "has good management controls to ensure accuracy of the information that is reported" and "Congress and the public can rely upon the information EPA provides regarding construction completions." GAO's report, *Superfund Information on the Status of Sites* (GAO/ RCED-98-241), estimated that the cleanup status of National Priority List sites reported by CERCLIS is accurate for 95 percent of the sites.

The OIG annually reviews the end-of-year Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) data, in an informal process, to verify the data supporting the performance measures. Typically there are no published results.

No data limitations have been identified.

Improvements: In 2003 the Agency will continue its efforts begun in 1999 to improve the Superfund Program's technical information by incorporating more site remedy selection, risk, removal response, and community involvement information into CERCLIS. Efforts to share information among the federal, state, and tribal programs to further enhance the Agency's efforts to efficiently identify, evaluate, and remediate Superfund hazardous waste sites

will continue. In 2003 the Agency will also establish data quality objectives for program planning purposes and to ascertain the organization's information needs for the next 5 years. Adjustments will be made to EPA's current architecture and business processes to better meet those needs.

Material Inadequacy: There are no material inadequacies for any of these performance measures.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-47)

Provide finality for small contributors by entering into *de minimis* settlements and report the number of settlers. (APG 27)

Performance Database: EPA headquarters maintains a database specifically to track the number of parties at *de minimis* settlements. Data are complete for assessment of FY 2001 performance.

Data Source: Manual and automated EPA systems; headquarters and regions enter numbers.

Data Quality: Regional personnel enter data, and headquarters checks a sample.

Improvements: None.

Material Inadequacy: There is no material inadequacy for this performance measure.

PERFORMANCE MEASURES: (Refer to Performance Data Chart page II-48)

- High priority Resource Conservation and Recovery Act (RCRA) facilities with human exposure to toxins controlled. (APG 29)
- High priority RCRA facilities with toxic releases to groundwater controlled. (APG 29)

Performance Database: Resource Conservation and Recovery Act Information System (RCRAInfo). RCRAInfo is the national database that supports EPA's RCRA program. RCRAInfo contains information on entities (generically referred to as "handlers") engaged in hazardous waste generation and management activities regulated under the portion of RCRA that provides for regulation of hazardous waste. RCRAInfo has several different modules, including a Corrective Action Module that tracks the status of facilities that require, or might require, corrective actions. A "yes" or "no" entry is made in the database with respect to meeting corrective action indicators. Supporting documentation and reference materials are maintained in regional and state files.

Human exposures controlled and toxic releases to groundwater controlled are used to summarize and report on the facility-wide environmental conditions at the RCRA Corrective Action Program's highest priority facilities. The environmental indicators are used to track the RCRA Program's progress on getting the highest priority contaminated sites under control. Known and suspected sitewide conditions are evaluated using a series of simple questions and flow-chart logic to arrive at a reasonable, defensible determination. These questions were issued as Interim Final Guidance on February 5, 1999. Lead regulators for the site (authorized state or EPA) make the environmental indicator determination; however, facilities or their consultants may assist EPA in the evaluation by providing information on the current environmental conditions.

Data are complete for assessment of FY 2001 performance. http://www.epa.gov/enviro/index_java.html

Data Source: EPA regions and authorized states enter data on a rolling basis.

Data Quality: States and regions, which generate the data, manage data quality control related to timeliness and accuracy (that is, the environmental conditions and determinations are correctly reflected by the data). Within RCRAInfo the application software enforces structural controls that ensure that high-priority national components of the data are properly entered. RCRAInfo documentation, which is available to all users on-line, provides guidance to

facilitate the generation and interpretation of data. Training on use of RCRAInfo is provided on a regular basis, usually annually, depending on the nature of systems changes and user needs.

GAO's 1995 report on EPA's Hazardous Waste Information System reviewed whether national RCRA information systems support meeting the primary objective of helping EPA and states manage the hazardous waste program. Recommendations coincide with ongoing internal efforts (WIN/Informed) to improve the definitions of data collected, ensure that data collected provide critical information, and minimize the burden on states.

No data limitations have been identified. As discussed above, environmental indicator determinations are made by the authorized states and EPA regions based on a series of standard questions and entered directly into RCRAInfo. EPA has provided guidance and training to states and regions to help ensure consistency in those determinations. High-priority facilities are monitored on a facility-by-facility basis, and the QA/QC procedures identified above are in place to help ensure data validity.

Improvements: EPA has successfully implemented new tools for managing environmental information to support federal and state programs, replacing the old data systems (the Resource Conservation and Recovery Information System [RCRIS] and the Biennial Reporting System) with RCRAInfo. RCRAInfo allows for tracking of information on the regulated universe of RCRA hazardous waste handlers and for characterization of facility status, regulated activities, and compliance history. The system also captures detailed data on the generation of hazardous waste from large quantity generators and on waste management practices from treatment, storage, and disposal facilities. RCRAInfo is web-enabled, providing a convenient user interface for federal, state, and local managers and encouraging development of in-house expertise in order to control costs. RCRAInfo also uses commercial off-the-shelf software to report directly from database tables.

Material Inadequacy: There are no material inadequacies for any of these performance measures.

PERFORMANCE MEASURES: (Refer to Performance Data Chart pages II-49, II-51)

- Leaking Underground Storage Tank (LUST) cleanups completed. (APG 30)
- Percentage of Underground Storage Tanks (USTs) significant operational compliance with leak detection requirements. (APG 36)
- Percentage of USTs in significant operational compliance with spills, overfill and corrosion protection regulations. (APG 36)

Performance Database: EPA does not maintain a database for this information. Data are complete for assessment of FY 2001 performance.

Data Source: Designated state agencies submit semiannual progress reports to the EPA regional offices.

Data Quality: EPA regional offices verify the data and then forward them to EPA headquarters, where staff examine the data and resolve any discrepancies with regional offices. The data are displayed in a document on a region-by-region basis, which allows regional staff to re-verify their data. The process relies on the accuracy and completeness of state records.

Improvements: None.

Material Inadequacy: There are no material inadequacies for any of these performance measures.

PERFORMANCE MEASURES: (Refer to Performance Data Chart page II-49)

- Cumulative site assessments. (APG 31)

- Cumulative jobs generated. (APG 31)
- Cumulative leveraging of cleanup and redevelopment funds. (APG 31)

Performance Database: The Brownfields Management System (BMS) is used to evaluate environmental and economics-related results, such as properties assessed, acres cleaned up, and jobs generated. BMS uses data gathered from Brownfields pilots' quarterly reports and from the EPA regions. CERCLIS records regional accomplishments on Brownfields assessments in the Brownfields module. This database module tracks Targeted Brownfields Assessments (TBAs) on a property-specific basis. The module contains information such as the property's operational status (e.g., "active" or "inactive"), prior use (e.g., "disposal," "production facility," or "midnight dump"), the actual start and completion dates for the TBA, the phase of the TBA, and the outcome or result of the TBA. Data are not currently complete; FY 2001 performance data are expected by April 2002.

Data Source: EPA headquarters, regional staff and contractors enter data on a rolling basis. Data are derived from quarterly grant recipient reports on Pilot and TBA projects.

Data Quality: Verification relies on reviews by regional staff responsible for pilot cooperative agreements or Brownfields cooperative agreements and contracts.

The program and external organizations have conducted several data quality reviews. GAO conducted the most recent, *Brownfields: Information on the Programs of EPA and Selected States* (GAO-01-52, December 15, 2000). GAO recommended that EPA continue to review data reported by recipients before the Agency's new guidelines for results became effective and make any corrections needed to ensure that the data are consistent with the current guidelines. GAO also recommended that EPA regions monitor and work to improve recipients' reporting of data on key results measures.

The reporting of results of the Brownfields pilots is subject to the Paperwork Reduction Act and attendant OMB regulations governing Information Collection Requests (ICRs), as well as the Agency's assistance regulations. Consequently the Agency is limited to obtaining information from pilot recipients on specific accomplishments attained with grant funds, such as properties assessed (40 CFR 35.6650(b)(1)). In addition, EPA may not require private sector entities, which do not receive EPA financial assistance, to provide information relating to such accomplishment measures as redevelopment dollars invested or numbers of jobs created. These constraints might lead to an under reporting of accomplishments.

Improvements: In September 1999 EPA headquarters issued guidance to the regions to standardize quarterly reporting of accomplishment measures for newly awarded and amended assessment grants. This guidance was developed to ensure that the standardized information collected fell within the scope of regulations and applicable OMB controls for quarterly reporting by assessment pilot recipients. EPA also is working with recipients to encourage the use of standardized reporting through workshops and training. To improve recipients' reporting of data on key results measures, EPA has implemented GAO's recommendation that the Agency make it clear to recipients that follow-on awards depend on reported results.

Material Inadequacy: There are no material inadequacies for any of these performance measures.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-50)

Provide the SITE Program Report to Congress. (APG 33)

Performance Database: Program output; no internal tracking system.

Data Source, Data Quality, Improvements, Material Inadequacy: Not applicable.

Goal 5 - Better Waste Management, Restoration of Contaminated Waste Sites, and Emergency Response (continued)

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-51)

Percent of RCRA hazardous waste management facilities with permits or other approved controls in place. (APG 35)

Performance Database: RCRAInfo is the national database that supports EPA's RCRA program. RCRAInfo contains information on entities (generically referred to as "handlers") engaged in hazardous waste generation and management activities regulated under the portion of RCRA that provides for regulation of hazardous waste. RCRAInfo has several different modules, including status of RCRA facilities in the RCRA permitting universe. Data are complete for assessment of FY 2001 performance. http://www.epa.gov/enviro/index_java.html

Data Source: EPA regions and authorized states enter data on a rolling basis.

Data Quality: States and regions, which generate the data, manage data quality control related to timeliness and accuracy (that is, the environmental conditions and determinations are correctly reflected by the data). Within RCRAInfo the application software enforces structural controls that ensure that high-priority national components of the data are properly entered. RCRAInfo documentation, which is available to all users on-line, provides guidance to facilitate the creation and interpretation of data. Training on use of RCRAInfo is provided on a regular basis, usually annually, depending on the nature of systems changes and user needs.

GAO's 1995 report on EPA's Hazardous Waste Information System reviewed whether national RCRA information systems support meeting the primary objective of helping EPA and states manage the hazardous waste program. Recommendations coincide with ongoing internal efforts (WIN/Informed) to improve the definitions of data collected, ensure that data collected provide critical information, and minimize the burden on states. No data limitations have been identified.

Improvements: EPA has successfully implemented new tools for managing environmental information to support federal and state programs, replacing the old data systems (the RCRIS and the Biennial Reporting System) with RCRAInfo. RCRAInfo allows for tracking of information on the regulated universe of RCRA hazardous waste handlers and for characterization of facility status, regulated activities, and compliance history. The system also captures detailed data on the generation of hazardous waste from large-quantity generators and on waste management practices from treatment, storage, and disposal facilities. RCRAInfo is web-enabled, providing a convenient user interface for federal, state, and local managers and encouraging development of in-house expertise in order to control costs. RCRAInfo also uses commercial off-the-shelf software to report directly from database tables.

Material Inadequacy: There is no material inadequacy for this performance measure.

Goal 6 - Reduction of Global and Cross-Border Environmental Risks

Appendix B describes the quality of the data used to measure EPA's performance. For each of the 10 EPA Strategic Goals, this appendix describes (1) the performance measures (PMs), (2) the database(s) supporting the PMs, (3) the source of the database(s), (4) the quality of the data, (5) planned improvements to the data or database(s), and (6) any material inadequacies.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-58)

People in the Mexico border area protected from health risks because of adequate water and wastewater sanitation systems funded through the Border Environmental Infrastructure Fund. (cumulative) (APG 37)

Performance Database: No formal database exists. FY 2001 annual performance data are complete.

Data Source: Population figures from 1990 U.S. Census. Data for both U.S. and Mexican populations served by "certified" water/wastewater treatment improvements from the Border Environment Cooperation Commission (BECC). Data on projects funded from the North American Development Bank (NADBank), *Status Report on the Water-Wastewater Infrastructure Program for the U.S.-Mexico Borderlands*, January 2001.

Data Quality: Headquarters evaluates quarterly reports from EPA regional offices on these drinking water and wastewater sanitation projects. EPA regional representatives attend meetings of the certifying and financing entities for border projects (BECC and NADBank) and conduct site visits of projects under way to ensure the accuracy of information.

Improvements: None.

Material Inadequacy: There is no material inadequacy for this performance measure.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-59)

Concentration trends of toxic polycholorinated biphenyls (PCBs) in Great Lakes top predator fish. (APG 38)

Performance Database: Great Lakes National Program Office (GLNPO) base monitoring program.

Data Source: GLNPO's ongoing base monitoring program, which has included work with cooperating organizations such as the Great Lakes States, U.S. Geological Survey, and U.S. Fish and Wildlife Service.

Data Quality: GLNPO has in place a quality management system that conforms to the EPA Quality Management Order. GLNPO is audited every 3 years in accordance with federal policy for quality management. GLNPO's quality management system has been given "outstanding" ratings in previous peer and management reviews. Base monitoring programs are audited every 2 years; this program is to be audited in 2002 with special emphasis on the field sampling design and procedures.

There is greater uncertainty regarding the representativeness of data pertaining to nearshore areas because of the greater variability of the nearshore environment. GLNPO is seeking documentation of how samples are collected and what they represent in order to quantify uncertainty for data in each reported area. Limitations of the field sampling design will be addressed through the field audits in 2002. The field sampling aspects of the program are voluntary partnerships with the states, thus limiting federal oversight.

Improvements: The Great Lakes Environmental Database (GLENDA) is a significant new system with enhanced capabilities. Existing and future fish data will be added to GLENDA.

Material Inadequacy: There is no material inadequacy for this performance measure.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-59)

Concentration trends of toxic chemicals in the air (including PCBs, polycyclic aromatic hydrocarbons [PAHs], and pesticides). (APG 38)

Performance Database: GLNPO Integrated Atmospheric Deposition Network (IADN) operated jointly with Canada. FY 2001 annual performance date are complete.

Data Source: GLNPO and Canada are the principal sources of the data. Data also are collected through in-kind support and information sharing with other federal agencies, Great Lakes states, and Canada.

Data Quality: GLNPO has in place a quality management system that conforms to the EPA Quality Management Order. This program has a joint Canadian-U.S. quality system and a workgroup that meets twice a year. GLNPO is

audited every 3 years in accordance with federal policy for quality management. GLNPO's quality management system has been given "outstanding" ratings in previous peer and management reviews.

The sampling design is dominated by rural sites that under emphasize urban contributions to deposition; thus, although the data are very useful for trends information, there is less assurance of the representativeness of deposition to the whole lake. There are gaps in open lake water column organics data, thus limiting EPA's ability to calculate atmospheric loadings.

Improvements: GLNPO expects to post joint data that have passed quality review to http://binational.net/, a newly created joint international web site.

Material Inadequacy: There is no material inadequacy for this performance measure.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-59)

Trophic status and phosphorus concentrations in the Great Lakes. (APG 38)

Performance Database: GLNPO base monitoring program.

Data Source: Data are part of GLNPO's ongoing base monitoring program for the open waters of the five Great Lakes. GLNPO is the principal source of the data. FY 2001 annual performance data are complete.

Data Quality: GLNPO has in place a quality management system that conforms to the EPA Quality Management Order. GLNPO is audited every 3 years in accordance with federal policy for quality management. GLNPO's quality management system has been given "outstanding" ratings in previous peer and management reviews. The sampling and analytical operations in support of this program were audited in August 2001 with no significant findings related to quality. The representativeness of GLNPO's annual monitoring data will be assessed to ascertain the appropriate frequency for sampling various parameters.

Improvements: A streamlined data entry system that captures all field data in support of the open lake monitoring limnology program has been developed aboard the Research Vessel *Lake Guardian*.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-59)

Peer-reviewed reports for decision-makers and the public on potential consequences of global change on three regions and human health, which are the finished products of a multi-year effort. (APG 39)

Performance Database: Program output; no internal tracking system.

Data Source, Data Quality, Improvements, Material Inadequacy: Not applicable.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-60)

Assist 10 to 12 developing countries with economies in transition in developing strategies and actions for reducing emissions of greenhouse gases and enhancing carbon sequestration. (APG 40)

Performance Database: Program output; no internal tracking system. Performance data are complete and final.

Data Source, Data Quality, Improvements, Material Inadequacy: Not applicable.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-60)

Fuel efficiency of EPA-developed Partnership for a New Generation of Vehicles (PNGV) Concept Vehicle over EPA Driving Cycles Tested. (APG 41)

Performance Database: Fuel economy test data for both urban and highway test cycles under the EPA Federal Test Procedure for passenger cars. Performance data are complete and final.

Data Source: EPA fuel economy tests performed at the National Vehicle and Fuel Emissions Laboratory, Ann Arbor, Michigan.

Data Quality: EPA fuel economy tests are performed in accordance with the EPA Federal Test Procedure and all applicable quality assurance/quality control (QA/QC) procedures. EPA's National Vehicle and Fuel Emissions Laboratory is recognized as the world state-of-the-art facility for fuel economy and emissions testing.

Primarily because of EPA regulations, vehicle fuel economy testing is a well-established and precise exercise with extremely low test-to-test variability (well less than 5 percent). One uncertainty relates to fuel economy testing of hybrid vehicles (those with more than one source of on-board power), which is more complex than testing of conventional vehicles. EPA has not yet published formal regulations to cover hybrid vehicles.

Improvements: EPA is using good engineering judgment and ongoing consultations with other expert organizations (including major auto companies through PNGV) to develop internal procedures for testing hybrid vehicles.

Material Inadequacy: There is no material inadequacy for this performance measure.

PERFORMANCE MEASURES: (Refer to Performance Data Chart page II-60)

- Reductions from EPA's Buildings Sector Programs (ENERGY STAR). (APG 42)
- Greenhouse Gas Reductions from EPA's Industrial Efficiency/Waste Management Programs. (APG 42)
- Greenhouse Gas Reductions from EPA's Industrial Methane Outreach Programs. (APG 42)
- Greenhouse Gas Reductions from EPA's Industrial HFC/PFC Programs. (APG 42)
- Greenhouse Gas Reductions from EPA's Transportation Programs. (APG 42)
- Greenhouse Gas Reductions from EPA's State and Local Programs. (APG 42)

Performance Database: Baseline Data on Greenhouse Gas Emissions Climate Protection Division Tracking System. Performance data lag by approximately 9 months and are not currently available. Data will be reported in the FY 2002 Annual Report.

Data Source: Baseline data for carbon emissions related to energy use come from the Energy Information Agency (EIA). Baseline data for non-carbon dioxide emissions, including nitrous oxide and other global warming potential gases, are maintained by EPA. EPA develops the methane emissions baselines and projections using information from industrial partners, which include the natural gas, coal, and landfill gas development industries. EPA continues to develop annual inventories as well as update methodologies as new information becomes available.

EPA's voluntary programs collect partner reports on facility-specific improvements (e.g., space upgraded, kilowatt-hours reduced.) A carbon-conversion factor is used to convert this information to estimated greenhouse gas (GHG) reductions. EPA maintains a "tracking system" for emissions reductions based on the reports submitted by partners.

Data Quality: EPA devotes considerable effort to obtaining the best possible information on which to evaluate emissions reductions from voluntary programs. For example EPA has a quality assurance process in place to check the validity of partner reports.

Peer-reviewed carbon-conversion factors are used to ensure consistency with generally accepted measures of GHG emissions. The Administration regularly evaluates the effectiveness of its climate programs through interagency evaluations. The first such interagency evaluation, chaired by the White House Council on Environmental Quality, examined the status of the Climate Change Action Plan. The review included participants from EPA, the Department of Energy (DOE), the Department of Commerce (DOC), the Department of Transportation (DOT), and the U.S. Department of Agriculture (USDA). The results were published in the *U.S. Climate Action Report—1997*

as part of the United States' submission to the Framework Convention on Climate Change (FCCC). A 1997 audit by EPA's Office of the Inspector General concluded that the climate programs examined "used good management practices" and "effectively estimated the impact their activities had on reducing risks to health and the environment...." An interagency task force is preparing the Third National Communication to describe policies and strategies (such as ENERGY STAR and PNGV) undertaken by the United States to reduce GHG emissions, the implementation status of the policies and strategies, and their actual and projected benefits. One result of this interagency review process will be a refinement of future goals for these policies and strategies, which will be communicated to the Secretariat of the FCCC in 2001 as part of the Third National Communication.

These are indirect measures of GHG emissions (carbon-conversion factors and methods to convert material-specific reductions to GHG emissions reductions). The voluntary nature of the programs might affect reporting. Further research will be necessary to fully understand the links between GHG concentrations and specific environmental impacts, such as impacts on health, ecosystems, crops, weather events, and so forth.

Improvements: None.

Material Inadequacy: There are no material inadequacies for any of these performance measures.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-61)

Infrastructure for carbon sequestration activities developed. (APG 44)

Performance Database: Program output; no internal tracking system. Performance data are complete and final.

Data Source, Data Quality, Improvements, Material Inadequacy: Not applicable.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-61)

Annual GHG inventory. (APG 45)

Performance Database: Program output; no internal tracking system.

Data Source, Data Quality, Improvements, Material Inadequacy: Not applicable.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-60)

Annual Energy Savings. (APG 43)

Performance Database: Climate Protection Division Tracking.

Data Source: Voluntary energy efficiency programs collect partner reports on facility-specific improvements (e.g., space upgraded, kilowatt-hours reduced). Performance data lag by approximately 9 months and are not currently available. Data will be reported in the FY 2002 Annual Report.

Data Quality: EPA has a quality assurance process in place to check the validity of partner reports. The voluntary nature of programs might affect reporting.

Peer-reviewed carbon-conversion factors are used to ensure consistency with generally accepted measures of GHG emissions. The Administration regularly evaluates the effectiveness of its climate programs through interagency evaluations. The first such interagency evaluation, chaired by the White House Council on Environmental Quality, examined the status of the Climate Change Action Plan. The review included participants from EPA, DOE, DOC, DOT, and USDA. The results were published in the *U.S. Climate Action Report—1997* as part of the United States' submission to the FCCC. A 1997 audit by EPA's OIG concluded that the climate programs examined "used good management practices" and "effectively estimated the impact their activities had on reducing risks to health and the

environment....” An interagency task force is preparing the Third National Communication to describe policies and strategies (such as ENERGY STAR and PNGV) undertaken by the United States to reduce GHG emissions, the implementation status of the policies and strategies, and their actual and projected benefits. One result of this interagency review process will be a refinement of future goals for these policies and strategies, which will be communicated to the Secretariat of the FCCC in 2001 as part of the Third National Communication.

Improvements: None.

Material Inadequacy: There is no material inadequacy for this performance measure.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-62)

Assistance to countries working under Montreal Protocol. (APG 46)

Performance Database: Database maintained by Stratospheric Protection program (SPP). Performance data are complete and final.

Data Source: The progress of international implementation goals is measured by tracking the number of countries receiving assistance, dollars allocated to each, and the expected reduction in ozone-depleting substances in assisted countries. The United Nations Environment Programme (UNEP) and the SPP maintain the data.

Data Quality: The SPP receives periodic reports on the financial status of participating countries from UNEP. This information is then cross-checked with SPP records to ensure the accuracy of the performance data.

Improvements: None.

Material Inadequacy: There is no material inadequacy for this performance measure.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-62)

Domestic consumption of Class II hydrochlorofluorocarbons (HCFCs). (APG 47)

Performance Database: Allowance Tracking System (ATS) database maintained by SPP. Performance data lag by approximately 6 months and are not currently available. Data will be reported in FY 2002 Annual Report.

Data Source: Progress on restricting domestic consumption of Class II HCFCs is tracked by monitoring industry reports of compliance with EPA’s phaseout regulations. Monthly information on domestic production, imports, and exports from the International Trade Commission is maintained in the ATS.

Data Quality: Reporting and record-keeping requirements are published in 40 CFR Part 82, Subpart A, Sections 92.9 through 82.13. These sections of the Stratospheric Ozone Protection Rule specify the required data and accompanying documentation that companies must submit or maintain on-site to demonstrate their compliance with the regulation.

The ATS data are subject to a Quality Assurance Plan. In addition, the data are subject to an annual quality assurance review, coordinated by Office of Air and Radiation (OAR) staff separate from those on the team normally responsible for data collection and maintenance. The ATS is programmed to ensure consistency of the data elements reported by companies. The tracking system flags inconsistent data for review and resolution by the tracking system manager. This information is then cross-checked with compliance data submitted by reporting companies. The SPP maintains a user’s manual for the ATS that specifies the standard operating procedures for data entry and data analysis. Regional inspectors perform inspections and audits on-site at the facilities of producers, importers, and exporters. These audits verify the accuracy of compliance data submitted to EPA through examination of company records.

Improvements: None.

Material Inadequacy: There is no material inadequacy for this performance measure.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-62)

Domestic exempted production and import of newly produced Class I chlorofluorocarbons (CFCs) and halons. (APG 47)

Performance Database: ATS database maintained by SPP. Performance data lag by approximately 6 months and are not currently available. Data will be reported in the FY 2002 report.

Data Source: Progress on restricting domestic exempted consumption of Class I CFCs and halon is tracked by monitoring industry reports of compliance with EPA's phaseout regulations. Monthly information on domestic production, imports, and exports from the International Trade Commission is maintained in the ATS.

Data Quality: Reporting and record-keeping requirements are published in 40 CFR Part 82, Subpart A, Sections 82.9 through 82.13. These sections of the Stratospheric Ozone Protection Rule specify the required data and accompanying documentation that companies must submit or maintain on-site to demonstrate their compliance with the regulation.

The ATS data are subject to a Quality Assurance Plan. In addition the data are subject to an annual quality assurance review, coordinated by OAR staff separate from those on the team normally responsible for data collection and maintenance. The ATS is programmed to ensure consistency of the data elements reported by companies. The tracking system flags inconsistent data for review and resolution by the tracking system manager. This information is then cross-checked with compliance data submitted by reporting companies. The SPP maintains a user's manual for the ATS that specifies the standard operating procedures for data entry and data analysis. Regional inspectors perform inspections and audits on-site at the facilities of producers, importers, and exporters. These audits verify the accuracy of compliance data submitted to EPA through examination of company records.

Improvements: None.
Material Inadequacy: There is no material inadequacy for this performance measure.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-62)

Increase the number of children participating in the SunWise School Program by 25 percent. (APG 48)

Performance Database: The SunWise School Program Tracking System tracks multiple variables about participating schools, including student participation rates. Performance data are complete and final.

Data Source: Data on number of participating students are provided by an educator, e.g., classroom teacher or school nurse.

Data Quality: Participating educators are asked to evaluate the program at the end of the school year and provide information on the number of students who received SunWise teaching. These numbers are cross-checked against the numbers in the tracking system.

EPA's Internet Support Team in Research Triangle Park, North Carolina, developed the SunWise Tracking System database in accordance with their standard Quality Assurance Plan.

SunWise is a voluntary program. Educators register to join by completing a paper or electronic registration form. The paper registration form requests that educators submit a separate registration form for each participating class. In some instances an educator might not complete a registration form for each class, resulting in an under reporting

of student participation. The evaluation form educators are asked to complete at the end of the school year requests information on the number of participating students, and this information is cross-checked against the data from the tracking system. Because return of the evaluation form is not mandatory, the ability to cross-check the information is limited by the response rate. Because of these limitations, SunWise provides an *actual* number of participating schools and a conservative *estimate* of the number of participating students. The estimate is based on experience that at least 2 classes per school, with 25 students per class, participate.

Improvements: SunWise is working with Boston University Medical School to develop an enhanced system whereby all schools are called on to report their participation rates.

Material Inadequacy: There is no material inadequacy for this performance measure.

PERFORMANCE MEASURES: (Refer to Performance Data Chart page II-63)

- Number of countries or localities (3) that have adopted new or strengthened environmental laws and policies. (APG 49)
- Number of organizations (3) that have increased environmental planning, analysis, and enforcement capabilities. (APG 49)
- Number of organizations (3) that have increased capabilities to generate and analyze environmental data and other information. (APG 49)
- Number of organizations (3) that have increased public outreach and participation. (APG 49)
- Number of targeted sectors (3) that have adopted cleaner production practices. (APG 49)
- Number of cities (3) that have reduced mobile-source based ambient air pollution concentrations. (APG 49)

Performance Database: Performance measures are outputs with no internal tracking systems. Data are collected manually. FY 2001 annual performance data are complete.

Data Source: Project-specific.

Data Quality: Performance measurement requires objective assessment of tasks completed. Data on the performance of specific urban projects are compiled and recorded by the grantee after consulting bimonthly with local, regional, and national urban environmental practitioners. The data are forwarded to and verified (in writing) by the EPA project officer.

Improvements: Performance measures and databases were improved in FY 2001 to measure in-country indicators (new laws, planning capabilities, and activities) rather than program outputs, such as conferences and training developed and given by EPA. Activities in support of these projects might result in new or improved data collection systems in developing countries. Under its cooperative programs with the U.S. Agency for International Development (USAID) in Central America, EPA is developing a set of indicators to measure progress for each activity undertaken. These indicators should be in place in FY 2002.

Material Inadequacy: There are no material inadequacies for any of these performance measures.

Goal 7 - Expansion of Americans' Right to Know About Their Environment

Appendix B describes the quality of the data used to measure EPA's performance. For each of the 10 EPA Strategic Goals, this appendix describes (1) the performance measures (PMs), (2) the database(s) supporting the PMs, (3) the source of the database(s), (4) the quality of the data, (5) planned improvements to the data or database(s), and (6) any material inadequacies.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-69)

By the end of FY 2001, all 10 EPA Regions will have an enforcement and compliance web site. (APG 50)

Performance Database: Output measure; no database.

Data Source, Data Quality, Improvements, Material Inadequacy: Not applicable.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-69)

EPA will make 90 percent of enforcement and compliance policies and guidance issued in FY 2001 available on the Internet within 30 days. (APG 50)

Performance Database: Output measure; internal tracking system.

Data Source: Manual system. Headquarters tracks date document was issued and uploaded to the Internet. FY 2001 performance data are complete.

Data Quality, Improvements, Material Inadequacy: Not applicable.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-69)

By April 20, 2001, make summaries of all FY 2000 significant cases available on the Internet. (APG 50)

Performance Database: Output measure; no database.

Data Source, Data Quality, Improvements, Material Inadequacy: Not applicable.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-69)

Award 90 grants to organizations which address environmental problems in communities primarily of low income and minority populations. (APG 51)

Performance Database: Each region awards the grants from funds transferred from the Office of Environmental Justice (OEJ). Upon completion of each year's cycle, the regions submit their award selections to OEJ, from which a master list is compiled. OEJ maintains the annual lists. FY 2001 performance data are complete.

Data Source: The OEJ compiles lists of annual grant awards, based on information submitted by the regions.

Data Quality: Prior to award each grant application is reviewed in accordance with EPA quality management protocols in each region. Because these grants are for a maximum of $20,000 and do not involve data collection or manipulation, few are required to have Quality Management Plans associated with them.

Improvements: None.

Material Inadequacy: There is no material inadequacy for this performance measure.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-69)

Respond within 60 days to 75 percent of requests made to each region and National Program Manager to address complaints heard during public comment period at National Environmental Justice Advisory Council (NEJAC). (APG 51)

Performance Database: None.

Data Source: Comments made at the NEJAC meetings during the public comment period; transmittal letters are sent to regions for direct response to complainants.

Data Quality: This performance measure is not meaningful and will not be continued into 2003.

Improvements: None. This measure will not continue into 2003.

Material Inadequacy: There is no material inadequacy for this performance measure. However, information provided by this measure is not meaningful because it is tracking issuance of a form letter rather than substantive response to an issue. The letters are computer-generated and are sent for every comment rather than for comments relevant to an environmental issue under EPA's jurisdiction.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-69)

Conduct 18 NEJAC meetings and focused roundtables in local communities where problems have been identified. (APG 51)

Performance Database, Data Source, Data Quality, Improvements, Material Inadequacy: Not applicable.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-69)

Hold 25 EPA-sponsored public meeting where disproportionately impacted and disadvantaged communities participate. (APG 51)

Performance Database, Data Source, Data Quality, Improvements, Material Inadequacy: Not applicable.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-69)

Increase the number of demonstration projects established under the Federal Interagency Working Group on Environmental Justice. (APG 51)

Performance Database: None. The 15 projects are maintained in a text file in the OEJ. FY 2001 performance data are complete.

Data Source: The 15 identified demonstration projects are tracked by the sponsoring agency. No new projects were added in 2001.

Data Quality: Data are simple frequencies, checked informally for accuracy.

Improvements: EPA plans to develop a tracking system and publish it on the Internet.

Material Inadequacy: There is no material inadequacy for this performance measure.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-70)

TRI Public Release. (APG 52)

Performance Database Data Source, Data Quality, Improvements, Material Inadequacy: Not applicable.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-70)

Chemical submissions and revisions processed. (APG 52)

Goal 7 - Expansion of Americans' Right to Know About Their Environment (continued)

Performance Database: Toxic Release Inventory System (TRIS). FY 2001 performance data are complete. http://www.epa.gov/enviro/html/toxic_releases.html

Data Source: TRI chemical reports provided by reporting facilities.

Data Quality: Data are simple frequencies, checked informally for accuracy.

Improvements: None.

Material Inadequacy: There is no material inadequacy for this performance measure.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-70)

Toxic Release Inventory System (TRIS) database complete and report issued. (APG 52)

Performance Database: Output measure; no database.

Data Source, Data Quality, Improvements, Material Inadequacy: Not applicable.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-71)

The Agency's Risk Assessment Forum will develop technical issue papers and develop a framework for preparing cumulative risk assessments. (APG 53)

Performance Database: Output measure; no database.

Data Source, Data Quality, Improvements, Material Inadequacy: Not applicable.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-71)

The Agency's Risk Assessment Forum will develop guidance on determining management objectives and selecting assessment endpoints for ecological risk assessment. (APG 53)

Performance Database: Output measure; no database.

Data Source, Data Quality, Improvements, Material Inadequacy: Not applicable.

Goal 8 - Sound Science, Improved Understanding of Environmental Risk, and Greater Innovation to Address Environmental Problems

Appendix B describes the quality of the data used to measure EPA's performance. For each of the 10 EPA Strategic Goals, this appendix describes (1) the performance measures (PMs), (2) the database(s) supporting the PMs, (3) the source of the database(s), (4) the quality of the data, (5) planned improvements to the data or database(s), and (6) any material inadequacies.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-79)

Report describing the conditions of the Nation's estuaries. (APG 54)

Performance Database: Program output; no internal tracking system.
Data Source, Data Quality, Improvements, Material Inadequacy: Not applicable.

Goal 8 - Sound Science, Improved Understanding of Environmental Risk, and Greater Innovation to Address Environmental Problems (continued)

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-80)

Deliver a report to Congress on the status and effectiveness of the Environmental Technology Verification (ETV) Program during its first five years. (APG 55)

Performance Database: Program output; no internal tracking system.

Data Source, Data Quality, Improvements, Material Inadequacy: Not applicable.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-80)

High impact changes. (APG 56)

Performance Database: Program output; no internal tracking system.

Data Source, Data Quality, Improvements, Material Inadequacy: Not applicable.

Goal 9 - A Credible Deterrent to Pollution and Greater Compliance with the Law

Appendix B describes the quality of the data used to measure EPA's performance. For each of the 10 EPA Strategic Goals, this appendix describes (1) the performance measures (PMs), (2) the database(s) supporting the PMs, (3) the source of the database(s), (4) the quality of the data, (5) planned improvements to the data or database(s), and (6) any material inadequacies.

PERFORMANCE MEASURES: (Refer to Performance Data Chart pages II-88, II-91)

- 75 percent of concluded enforcement actions identify pollutant reductions and/or changes in facility management or information practices. (APG 57)
- Million pounds of pollutants reduced. (APG 57)
- Increase by 2 percent the number of concluded enforcement actions that would have the intended result of pollutant reductions through process changes or handling of pollutants, or result in improvements in facility management and information management practices from FY 2000. (Performance measure will be dropped in FY 2002.) (APG 57)
- Complete settlements with 500 facilities to voluntarily self-disclose to the Federal government and correct violations. (APG 62)

Performance Database: DOCKET. DOCKET tracks EPA civil, judicial, and enforcement actions, as well as information on the results and environmental benefits or concluded enforcement cases and information on self-disclosing policies. Performance data are preliminarily complete.

Data Source: The data for DOCKET are generated through the use of the Case Conclusion Data Sheet (CCDS), which Agency staff prepare after the conclusion of each criminal and civil (judicial and administrative) enforcement action. There are established procedures for the staff to calculate, by statute (e.g., Clean Water Act), the pollutant reductions or eliminations. The procedure first entails the staff's determining the difference between the current "out of compliance" concentration of the pollutant(s) and the post-enforcement action "in compliance" concentration. This difference is then converted to mass per time using the flow or quantity information derived during the case. Additionally CCDS captures the relevant information on the results and environmental benefits of the concluded enforcement cases. Headquarters records information on the self-disclosing policies in DOCKET.

Data Quality: Procedures are in place for both the CCDS and for DOCKET entry. Separate CCDS Calculation and Completion Checklists are required to be filled out at the time the CCDS is completed. Information contained in the CCDS and DOCKET is reviewed by regional and headquarters staff for completeness and accuracy.

Improvements: In November 2000 EPA completed and issued to headquarters and regional managers and staff a comprehensive guidance package on the preparation of the CCDS. This guidance is available in both print and CD-ROM. Both versions contain work examples to ensure better calculation of the amounts of pollutants reduced or eliminated through concluded enforcement actions. EPA is also planning to host CCDS training in each of its 10 regional offices during FY 2002. DOCKET has been modified to collect information on self-disclosing policies, which have been tracked in DOCKET since beginning in FY 2000.

Material Inadequacy: There are no material inadequacies for any of these performance measures.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-88)

Increase or maintain existing compliance rates or other indicators of compliance for populations with established baselines, or develop additional rates for newly selected populations. (APG 57)

Performance Database: Permit Compliance System (PCS). PCS tracks National Pollutant Discharge Elimination System (NPDES) permit and enforcement actions, as well as reporting and scheduling requirements. The AIRS Facility Subsystem (AFS) captures emission, compliance, and permit data for major stationary sources of air pollution. The Resource Conservation and Recovery Act Information System (RCRAInfo) supports permit, compliance, and corrective action activities carried out by hazardous waste handlers. Performance data are preliminarily complete. Air data will be available at the end of January 2002.

Data Source: EPA regional offices, delegated states.

Data Quality: All of the systems have been developed in accordance with the Office of Information Management's life cycle management guidance, which includes data validation processes, internal screen audit checks and verification, system and user documents, data quality audit reports, third-party testing reports, and detailed report specifications for showing how data are calculated.

Regarding AFS, EPA's Office of the Inspector General (OIG) reports in 1997 and 1998 highlighted states' problems with identifying and reporting significant violators of the Clean Air Act, impairing EPA's ability to assess noncompliance. EPA issued High Priority Violator Guidance to improve tracking of sources of violations. As a result of the reports, EPA has enhanced oversight and headquarters' outreach to regions, states, and local areas. (See Section III - Management Accomplishments and Challenges.)

Improvements: PCS modernization is under way. EPA is preparing Quality Management Plans (QMPs) (data quality objectives, quality assurance project plans, baseline assessments) for all major systems. A new Integrated Compliance Information System (ICIS) will support core program needs and consolidate and streamline existing systems. A pilot project to develop statistically valid compliance rates for selected universes of regulated facilities is under way. Also, a National Congressional Performance Measure Strategy project on the impact of EPA strategies on recidivism focuses attention on better compliance assurance targeting , i.e., monitoring, compliance assistance, incentives, and enforcement.

Material Inadequacy: There is no material inadequacy for this performance measure.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-88)

- Reduce by 2 percentage points overall the level of significant noncompliance recidivism among the Clean Air Act, Clean Water Act, and Resource Conservation and Recovery Act programs from FY 2000 levels. (APG 57)
- Increase by 2 percentage points over FY 2000 levels the proportion of significant noncomplier facilities under the Clean Air Act, Clean Water Act, and Resource Conservation and Recovery Act which returned to full physical compliance in less than two years. (APG 57)

Performance Databases: PCS tracks NPDES permit and enforcement actions, as well as reporting and scheduling requirements. AFS captures emission, compliance, and permit data for major stationary sources of air pollution. RCRAInfo supports permit, compliance, and corrective action activities carried out by hazardous waste handlers. Performance data are preliminarily complete. Air data will be available at the end of January 2002.

Data Source: EPA regional offices, and delegated states.

Data Quality: All the systems have been developed in accordance with the Office of Information Management's life cycle management guidance, which includes data validation processes, internal screen audit checks and verification, system and user documents, data quality audit reports, third-party testing reports, and detailed report specifications for showing how data are calculated.

Regarding AFS, EPA's OIG reports in 1997 and 1998 highlighted states' problems with identifying and reporting significant violators of the Clean Air Act, impairing EPA's ability to assess noncompliance. EPA issued High Priority Violator Guidance to improve tracking of sources of violations. As a result of the reports, EPA has enhanced oversight and headquarters' outreach to regions, states, and local areas. (See Section III - Management Accomplishments and Challenges.)

Improvements: PCS modernization is under way. EPA is preparing QMPs (data quality objectives, quality assurance project plans, baseline assessments) for all major systems. A new system, ICIS, will support core program needs and consolidate and streamline existing systems. A pilot project to develop statistically valid compliance rates for selected universes of regulated facilities is under way. Also, a National Congressional Performance Measure Strategy project on the impact of EPA strategies on recidivism focuses attention on better compliance assurance targeting, i.e., monitoring, compliance assistance, incentives, and enforcement.

Material Inadequacy: There are no material inadequacies for any of these performance measures.

PERFORMANCE MEASURES: (Refer to Performance Data Chart pages II-88, II-90)

- Produce a report on the number of civil and criminal enforcement actions initiated and concluded. (APG 57)
- Complete Quality Management Plan (QMP) project for additional data systems. (APG 60)
- Field test Integrated Compliance Information System (ICIS) Phase I, retire DOCKET system and complete design and development of ICIS phase II. (APG 60)
- Continue operation and maintenance/user support of 14 information systems housing national enforcement and compliance assurance data with a minimum of 95 percent operational efficiency. (APG 60)

Performance Database: Output measures; internal tracking. Performance outputs are complete.

Data Source, Data Quality, Improvements, Material Inadequacy: Not applicable.

PERFORMANCE MEASURES: (Refer to Performance Data Chart page II-89)

- Number of EPA inspections conducted. (APG 58)
- Number of criminal investigations. (APG 58)
- Number of civil investigations. (APG 58)

Performance Databases: Integrated Data for Enforcement Analysis (IDEA). IDEA integrates data from major enforcement and compliance systems, such as PCS, AFS, RCRAInfo, and the Emergency Response Notification System (ERNS). Performance data are preliminarily complete. Air data will be available at the end of January 2002.

Data Source: EPA regional offices.

Data Quality: All the systems have been developed in accordance with the Office of Information Management's life cycle management guidance, which includes data validation processes, internal screen audit checks and verification, system and user documents, data quality audit reports, third-party testing reports, and detailed report specifications for showing how data are calculated.

Regarding AFS, EPA's OIG reports in 1997 and 1998 highlighted states' problems with identifying and reporting significant violators of the Clean Air Act, impairing EPA's ability to assess noncompliance. EPA issued High Priority Violator Guidance to improve tracking of sources of violations. As a result of the reports, EPA has enhanced oversight and headquarters' outreach to regions, states, and local areas. (See Section III - Management Accomplishments and Challenges.)

Improvements: PCS modernization is under way. EPA is preparing QMPs (data quality objectives, quality assurance project plans, baseline assessments) for all major systems. A new system, ICIS will support core program needs and consolidate and streamline existing systems. A pilot project on developing statistically valid compliance rates is under way.

Material Inadequacy: There are no material inadequacies for any of these performance measures.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-90)

Begin the development and system testing of a modernized Permit Compliance System (PCS). (APG 60)

Performance Database: No database; internal tracking of measure. Performance output is complete.

Data Source: Not applicable.

Data Quality: Contained within the project design.

Improvements, Material Inadequacy: Not applicable.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-90)

Conduct EPA-assisted inspections to build capacity. (APG 59)

Performance Database: Output measure; internal regional tracking system. Performance output is complete.

Data Source: Internal Regional tracking system.

Data Quality: Regional and HQ managers check information to confirm accuracy.

Improvements: None.

Material Inadequacy: There is no material inadequacy for this performance measure.

PERFORMANCE MEASURES: (Refer to Performance Data Chart page II-90)

- Number of EPA training classes/seminars delivered to states, localities and tribes to build capacity. (APG 59)
- Total number of state, tribal and local students trained. (APG 59)

Performance Database: National Enforcement Training Institute's (NETI's) course information management systems, the Automated Blue Form, and the registrar. Performance data are complete.

Data Source: Manual Reports.

Data Quality: Managers ensure quality assurance/quality control of information in system.

Improvements: None.

Material Inadequacy: There are no material inadequacies for any of these performance measures.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-91)

Review and respond to 100 percent of the notices for transboundary movement of hazardous wastes, ensuring their proper management in accordance with international agreements. (APG 61)

Performance Database: Waste Import Tracking System (WITS), Hazardous Waste Export System (HWES). Performance data are complete.

Data Source: Manual reports (notifications) submitted by U.S. exporters and by foreign governments for imports.

Data Quality: EPA reviews the notifications, manifests, and annual reports to ensure they are timely and accurate before they are entered into the database.

Improvements: None.

Material Inadequacy: There is no material inadequacy for this performance measure.

PERFORMANCE MEASURES: (Refer to Performance Data Chart page II-90)

- The National Enforcement Training Institute (NETI) will train tribal personnel. (APG 59)
- The National Enforcement Training Institute (NETI) will provide tribal governments with 50 computer-based training (CBT) modules. (APG 59)

Performance Database: National Enforcement Training Institute Registration System. Performance data are complete.

Data Source:. Qualified individuals interested in NETI training.

Data Quality, Improvements: None.

Material Inadequacy: There are no material inadequacies for any of these performance measures.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-90)

Conduct four analyses of environmental problems in Indian Country using EPA's On-line Tracking Information System (OTIS). (APG 60)

Performance Database: OTIS. OTIS integrates data from major enforcement and compliance systems, such as PCS, AFS, RCRAInfo, and ERNS. Performance data are complete.

Data Source: EPA regional offices.

Data Quality: All the systems have been developed in accordance with the Office of Information Management's life cycle management guidance, which includes data validation processes, internal screen audit checks and verification, system and user documents, data quality audit reports, third-party testing reports, and detailed report specifications for showing how data are calculated.

Improvements: Not applicable.

Material Inadequacy: There is no material inadequacy for this performance measure.

Goal 9 - A Credible Deterrent to Pollution and Greater Compliance with the Law (continued)

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-91)

Increase Environmental Management Systems (EMS) use by developing tools, such as training and best practice manuals that encourage improved environmental performance. (APG 63)

Performance Database: Internal tracking system is currently being developed. Performance output is complete.

Data Source: Headquarters will report on progress.

Data Quality, Improvements, Material Inadequacy: Not applicable.

Goal 10 - Effective Management

Appendix B describes the quality of the data used to measure EPA's performance. For each of the 10 EPA Strategic Goals, this appendix describes (1) the performance measures (PMs), (2) the database(s) supporting the PMs, (3) the source of the database(s), (4) the quality of the data, (5) planned improvements to the data or database(s), and (6) any material inadequacies.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-100)

Percentage of outcome-oriented APGs/PMs (Annual Performance Goals/Performance Measures) in Agency's FY 2002 Annual Performance Plan and Congressional Justification submission. (APG 66)

Performance Database: Performance and Environmental Results System (PERS) and Budget Automation System (BAS) are used for internal tracking. The performance data are complete for assessment of FY 2001 performance.

Data Source: PERS, BAS, and Office of the Chief Financial Officer (OCFO) staff evaluation.

Data Quality: Because PERS and BAS are databases that primarily house information from Agency program databases, most of the quality assurance and control efforts focus on ensuring effective data entry. However, internal staff evaluation allows the Agency to develop trend data and analyze information submitted to these centralized databases.

Improvements, Material Inadequacy: Not applicable.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-99)

Agency's audited Financial Statements and Annual Report are submitted on time. (APG 65)

Performance Database: Output measure; no database for tracking timeliness.

Data Source, Data Quality, Improvements, Material Inadequacy: Not applicable.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-99)

EPA's audited Financial Statements receive an unqualified opinion and provide information that is useful and relevant to the Agency and external parties. (APG 65)

Performance Database: Output measure; no database for tracking unqualified opinions and information that is useful and relevant.

Data Source, Data Quality, Improvements, Material Inadequacy: Not applicable.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-101)

Number of IG [Inspector General] recommendations/advice or actions taken to improve efficiency and effectiveness of business practices and environmental programs. (APG 70)

Performance Database: The Office of the Inspector General (OIG) Performance Results and Measurement System (PRMS). PRMS is used to capture and aggregate information on the actual and prospective results of Agency products and services. Database measures include numbers of: (1) recommendations for environmental improvement; (2) legislative and regulatory changes; (3) policy, directive, or process changes; (4) environmental risks identified, reduced or eliminated; (5) best practices identified and transferred; and (6) examples of environmental improvement. The performance data are complete for assessment of FY 2001 performance.

Data Source: Designated OIG staff are responsible for entering data into the system. Data are from OIG independent follow-up, research, and certifications of actions taken by EPA officials. OIG also collects independent data from EPA's partners and through its own performance evaluations, audits, and research to determine the extent of environmental improvements, risks reduced or avoided, and best practices transferred.

Data Quality: All performance data submitted to the database require a verifiable source ensuring data accuracy and reliability. Data quality assurance and control of reported results, qualified by common application of new measurement definitions, are subject to rigorous compliance with the Government Auditing Standards of the Comptroller General, review by OIG management, and independent OIG Management Assessment Review Teams. The statutory mission of the OIG is to conduct independent audits, evaluations, and investigations to promote, among other things, integrity in Agency operations and reporting systems.

Improvements: The OIG developed PRMS as a prototype in FY 2001 and anticipates enhancing it in FY 2003 with more sophisticated software designed to improve data collection, retention, and analysis. With enhanced linkages to customer satisfaction results and resource investments, it will provide a full, balanced scorecard with return on investment information for accountability and decision-making.

Material Inadequacy: There is no material inadequacy for this performance measure.

PERFORMANCE MEASURES: (Refer to Performance Data Chart page II-100)

Percentage of the new Research Triangle Park building construction completed. (APG 68)

Performance Database: No relevant database used to track this performance measure.

Data Source, Data Quality, Improvements, Material Inadequacy: Not applicable.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-100)

Percentage of Interstate Commerce Commission (ICC) building construction completed. (APG 68)

Performance Database: No relevant database used to track this performance measure.

Data Source, Data Quality, Improvements, Material Inadequacy: Not applicable.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-101)

Percentage of fuel cell components in place. (APG 69)

Performance Database: No relevant database used to track this performance measure.

Data Source, Data Quality, Improvements, Material Inadequacy: Not applicable.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-100)

Percentage of EPA personnel consolidated into headquarters complex. (APG 67)

Performance Database: Program output measure; no internal tracking system.

Data Source, Data Quality, Improvements, Material Inadequacy: Not applicable.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-99)

Evaluate the effectiveness of the *Children's Health Valuation Handbook*. (APG 64)

Performance Database: Not applicable.

Data Source: A private contractor completed the evaluation of the *Children's Health Valuation Handbook* on September 29, 2001.

Data Quality, Improvements, Material Inadequacy: Not applicable.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-101)

Overall customer and stakeholder satisfaction with audit products and services (timeliness, relevancy, usefulness and responsiveness). (APG 70)

Performance Database: Performance data are maintained in the PRMS. The performance data are complete for assessment of FY 2001 performance.

Data Source: The OIG regularly collects information on customer satisfaction and results on audit products and services from direct surveys to external customers and stakeholders. Survey results are accumulated, maintained, and tallied in the OIG PRMS.

Data Quality: Survey results come from respondents and are entered into the OIG PRMS. Confirmation with respondents is conducted selectively.

Improvements: No improvements to this data collection are planned, except to begin using the Internet for wider distribution of surveys.

Material Inadequacy: There is no material inadequacy for this performance measure.

PERFORMANCE MEASURE: (Refer to Performance Data Chart page II-101)

Potential monetary value of recommendations, questioned costs, savings and recoveries. (APG 70)

Performance Database: Performance data are maintained and aggregated in the Inspector General Operations and Reporting System and the new OIG PRMS. The performance data are complete for assessment of FY 2001 performance.

Data Source: The potential monetary value of recommendations is the direct result of audits and evaluations performed in strict compliance with the Generally Accepted Auditing Standard of the United States Comptroller General. The OIG identifies the amounts of ineligible, unsupported, and unnecessary/unreasonable costs based on professional auditing standards and applicable laws and regulations relative to the scope and type of audit.

Data Quality: Data are collected from audits and evaluations performed in accordance with professional standards and are subject to both internal and external independent review.

Improvements: The OIG is working to improve the consistency in data reporting in the new PRMS, which is designed to integrate performance, customer satisfaction, and cost data into a balanced scorecard.

Material Inadequacy: There is no material inadequacy for this performance measure.

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